



# ***STIC Search Report***

***EIC 1700***

**STIC Database Tracking Number: 181770**

**TO: Eisa Elhilo  
Location: REM 9A60  
Art Unit : 1751  
March 13, 2006**

**Case Serial Number: 10/715839**

**From: Usha Shrestha  
Location: EIC 1700  
REMSSEN 4B28  
Phone: 571/272-3519  
[usha.shrestha@uspto.gov](mailto:usha.shrestha@uspto.gov)**

## **Search Notes**

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:17:51 ON 10 MAR 2006

=> d his ful

FILE 'HCAPLUS' ENTERED AT 10:03:05 ON 10 MAR 2006

L1 1 SEA ABB=ON PLU=ON US20040226111/PN  
D SCAN  
SEL RN

FILE 'REGISTRY' ENTERED AT 10:03:27 ON 10 MAR 2006

L2 2 SEA ABB=ON PLU=ON (64784-13-0/BI OR 95230-12-9/BI)  
D SCAN

FILE 'LREGISTRY' ENTERED AT 10:05:00 ON 10 MAR 2006

L3 STR

FILE 'REGISTRY' ENTERED AT 10:06:52 ON 10 MAR 2006

L4 50 SEA SSS SAM L3  
L5 STR L3  
L6 50 SEA SSS SAM L5  
L7 SCR 1839  
L8 50 SEA SSS SAM L5 AND L7  
L9 SCR 2043 OR 1918  
L10 50 SEA SSS SAM L5 AND L7 NOT L9

FILE 'LREGISTRY' ENTERED AT 11:02:20 ON 10 MAR 2006

L11 STR  
L12 STR  
L13 STR

FILE 'REGISTRY' ENTERED AT 11:21:58 ON 10 MAR 2006

L14 SCR 2040  
L15 50 SEA SSS SAM L11 AND L14  
L16 SCR 1918  
L17 50 SEA SSS SAM L11 AND L14 NOT L16  
L18 8 SEA SSS SAM L12 AND L14  
L19 11 SEA SSS SAM L13 AND L14  
L20 1 SEA ABB=ON PLU=ON PHTHALOCYANINE/CN  
L21 2353 SEA ABB=ON PLU=ON 13560/RID  
L22 20 SEA ABB=ON PLU=ON L21 AND (CU OR MG OR FE OR ZN OR  
AL OR MN OR CA OR BA)/ELS  
L23 STR L13  
L24 2 SEA SSS SAM L23 AND L14  
L25 26686 SEA SSS FUL L11 AND L14 NOT L16  
L26 72 SEA SSS FUL L12 AND L14  
L27 15 SEA SSS FUL L23 AND L14

□□□□ SAV L25 ELH839/A

SAV L26 ELH839A/A

SAV L27 ELH839B/A

FILE 'HCAPLUS' ENTERED AT 11:43:57 ON 10 MAR 2006

L28 44 SEA ABB=ON PLU=ON L22  
L29 26 SEA ABB=ON PLU=ON L26  
L30 9 SEA ABB=ON PLU=ON L27  
L31 78 SEA ABB=ON PLU=ON (L28 OR L29 OR L30)  
L32 10869 SEA ABB=ON PLU=ON L25  
L33 70 SEA ABB=ON PLU=ON L32 AND (HAIR? OR KERAT?)  
L34 1 SEA ABB=ON PLU=ON L31 AND (HAIR? OR KERAT?)

L35 4 SEA ABB=ON PLU=ON L33 AND COSMET?  
 L36 30 SEA ABB=ON PLU=ON L33 AND DYE?  
 L37 35 SEA ABB=ON PLU=ON (L34 OR L35 OR L36)  
 L38 23 SEA ABB=ON PLU=ON L31 AND (DYE? OR COSMET?)  
 L39 57 SEA ABB=ON PLU=ON L37 OR L38  
 L40 QUE ABB=ON PLU=ON COSMETIC? OR SHAMPOO? OR SKINCARE?  
 OR SCALPCARE? OR HAIRCARE? OR (SKIN# OR DERMA? OR  
 SCALP? OR KERATIN? OR HAIR#) (2A) (CARE? OR TREAT? OR  
 CONDITION?)  
 L41 7 SEA ABB=ON PLU=ON L40 AND L39  
 L42 25 SEA ABB=ON PLU=ON L31 AND (DYE? OR COLOR? COLOUR? OR  
 PIGMENT?)  
 L43 35 SEA ABB=ON PLU=ON L33 AND (DYE? OR COLOR? COLOUR? OR  
 PIGMENT?)  
 L44 62 SEA ABB=ON PLU=ON L39 OR L41 OR L42 OR L43  
 L45 51 SEA ABB=ON PLU=ON L44 AND P/DT  
 L46 11 SEA ABB=ON PLU=ON L44 NOT L45  
 L47 7 SEA ABB=ON PLU=ON L46 NOT (2003-2005)/PY  
 L48 41 SEA ABB=ON PLU=ON L45 AND (1907-2002)/PRY,AY  
 L49 48 SEA ABB=ON PLU=ON L47 OR L48

=> d que 149

L11 STR

Hy 1 C=O 4 A +  
 2 3

NODE ATTRIBUTES:

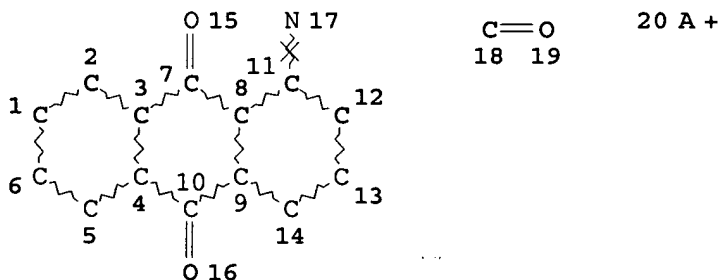
CHARGE IS \*+ AT 4  
 NSPEC IS RC AT 4  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS PCY UNS AT 1  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1 N AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L12 STR



NODE ATTRIBUTES:

CHARGE IS \*+ AT 20  
 NSPEC IS RC AT 17  
 NSPEC IS RC AT 20  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 20

## STEREO ATTRIBUTES: NONE

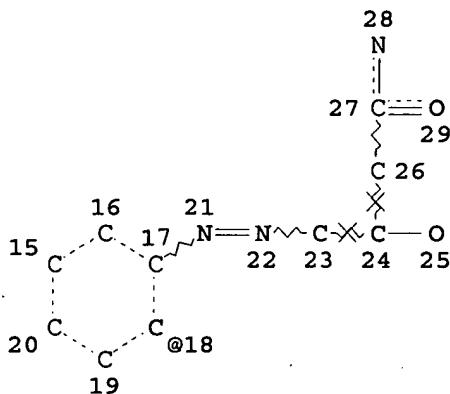
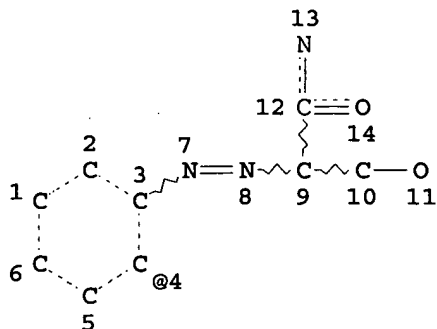
L14 SCR 2040.

L16 SCR 1918

L21 2353 SEA FILE=REGISTRY ABB=ON PLU=ON 13560/RID

L22 20 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND (CU OR MG OR  
FE OR ZN OR AL OR MN OR CA OR BA)/ELS

L23 STR



32 A +

C=O  
30 31

G1 33

VAR G1=4/18

## NODE ATTRIBUTES:

CHARGE IS \*+ AT 32

NSPEC IS RC AT 23

NSPEC IS RC AT 24

NSPEC IS RC AT 26

NSPEC IS RC AT 32

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 33

## STEREO ATTRIBUTES: NONE

L25 26686 SEA FILE=REGISTRY SSS FUL L11 AND L14 NOT L16

L26 72 SEA FILE=REGISTRY SSS FUL L12 AND L14

L27 15 SEA FILE=REGISTRY SSS FUL L23 AND L14

L28 44 SEA FILE=HCAPLUS ABB=ON PLU=ON L22

L29 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L26

L30 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L27

L31 78 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30)

L32 10869 SEA FILE=HCAPLUS ABB=ON PLU=ON L25

L33 70 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (HAIR? OR  
KERAT?)L34 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (HAIR? OR  
KERAT?)

L35 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND COSMET?  
 L36 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND DYE?  
 L37 35 SEA FILE=HCAPLUS ABB=ON PLU=ON (L34 OR L35 OR L36)  
 L38 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (DYE? OR  
 COSMET?)  
 L39 57 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 OR L38  
 L40 QUE ABB=ON PLU=ON COSMETIC? OR SHAMPOO? OR SKINCARE?  
 OR SCALPCARE? OR HAIRCARE? OR (SKIN# OR DERMA? OR SCAL  
 P? OR KERATIN? OR HAIR#) (2A) (CARE? OR TREAT? OR CONDITI  
 ON?)  
 L41 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND L39  
 L42 25 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (DYE? OR  
 COLOR? COLOUR? OR PIGMENT?)  
 L43 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND (DYE? OR  
 COLOR? COLOUR? OR PIGMENT?)  
 L44 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR L41 OR L42 OR  
 L43  
 L45 51 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 AND P/DT  
 L46 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 NOT L45  
 L47 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 NOT (2003-2005)/PY  
 L48 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L45 AND (1907-2002)/PR  
 Y,AY  
 L49 48 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 OR L48

=> fil hcap  
 FILE 'HCAPLUS' ENTERED AT 14:18:10 ON 10 MAR 2006

=> d l49 1-48 ibib abs hitstr hitind

L49 ANSWER 1 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:100738 HCAPLUS  
 DOCUMENT NUMBER: 144:198849  
 TITLE: Novel dosage form comprising modified-release  
 and immediate-release active ingredients  
 INVENTOR(S): Vaya, Navin; Karan, Rajesh Singh; Sadanand,  
 Sunil; Gupta, Vinod Kumar  
 PATENT ASSIGNEE(S): India  
 SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part  
 of U.S. Ser. No. 630,446.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2006024365	A1	20060202	US 2005-134633	2005 0519
			<--	
US 2004096499	A1	20040520	US 2003-630446	2003 0729

PRIORITY APPLN. INFO.: IN 2002-MU697 A 2002

0805

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IN 2002-MU699 A 2002  
0805

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IN 2003-MU80 A 2003  
0122

IN 2003-MU82 A 2003  
0122

US 2003-630446 A2 2003  
0729

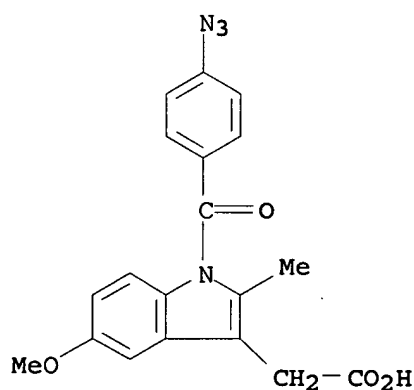
AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared. The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.

IT 62851-43-8, Zidometacin 64228-81-5, Atracurium besylate 96946-42-8, Cisatracurium besilate 106861-44-3, Mivacurium chloride 126443-96-7, Napavin

(novel dosage form comprising modified-release and immediate-release active ingredients)

RN 62851-43-8 HCAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-azidobenzoyl)-5-methoxy-2-methyl-(9CI) (CA INDEX NAME)



RN 64228-81-5 HCAPLUS

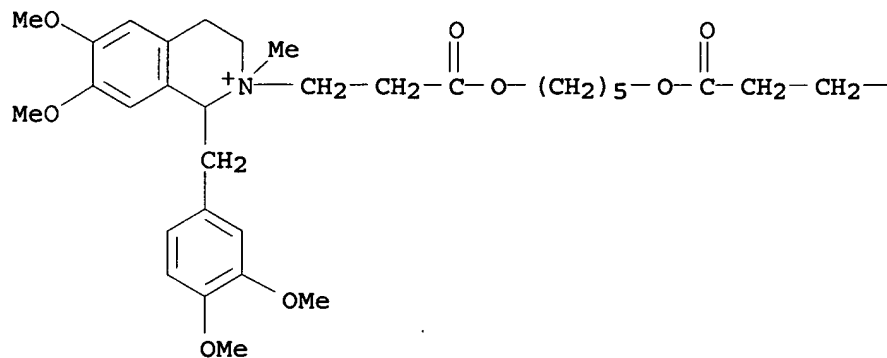
CN Isoquinolinium, 2,2'-[1,5-pentanediy]bis[oxy(3-oxo-3,1-propanediy)]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-, dibenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

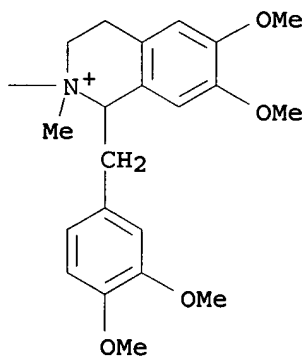
CRN 64228-79-1

CMF C53 H72 N2 O12

PAGE 1-A



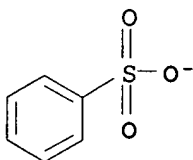
PAGE 1-B



CM 2

CRN 3198-32-1

CMF C6 H5 O3 S



RN 96946-42-8 HCAPLUS

CN Isoquinolinium, 2,2'-[1,5-pentanediyldis[oxo(3-oxo-3,1-propanediyl)]]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-, (1R,1'R,2R,2'R)-,

dibenzenesulfonate (9CI) (CA INDEX NAME)

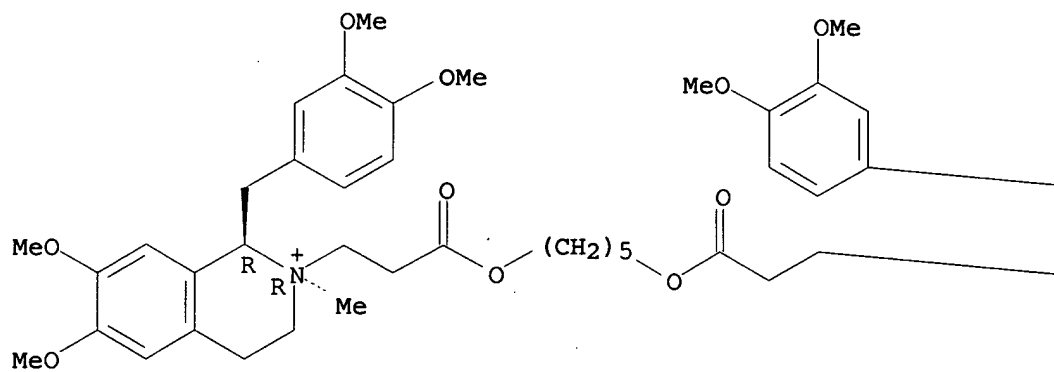
CM 1

CRN 96946-41-7

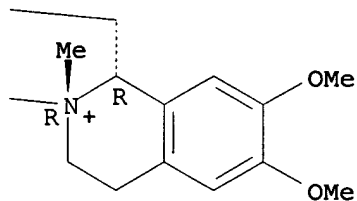
CMF C53 H72 N2 O12

Absolute stereochemistry.

PAGE 1-A



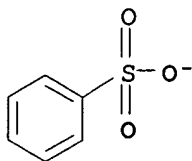
PAGE 1-B



CM 2

CRN 3198-32-1

CMF C6 H5 O3 S

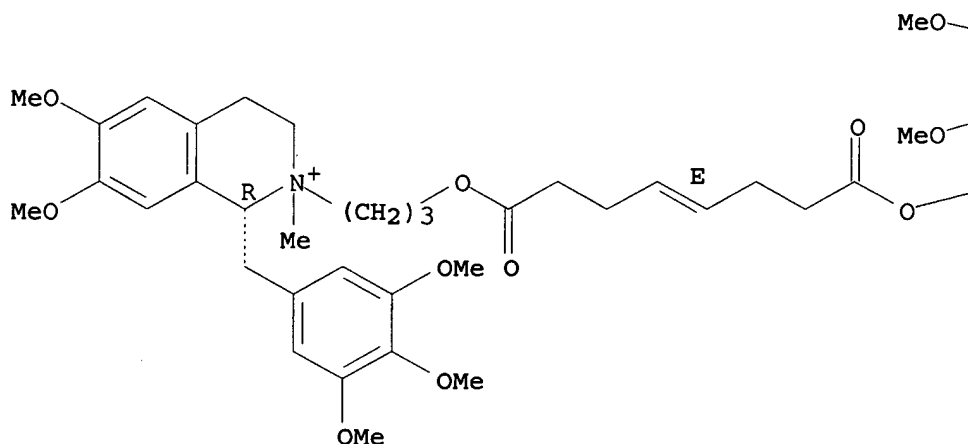




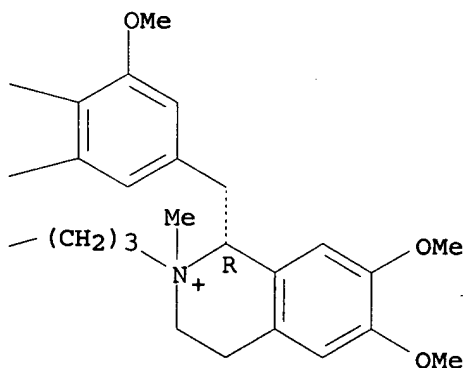
RN 106861-44-3 HCAPLUS  
 CN Isoquinolinium, 2,2'-[[[(4E)-1,8-dioxo-4-octene-1,8-diyl]bis(oxy-3,1-propanediyl)]bis[1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-1-[(3,4,5-trimethoxyphenyl)methyl]-, dichloride, (1R,1'R)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

PAGE 1-A

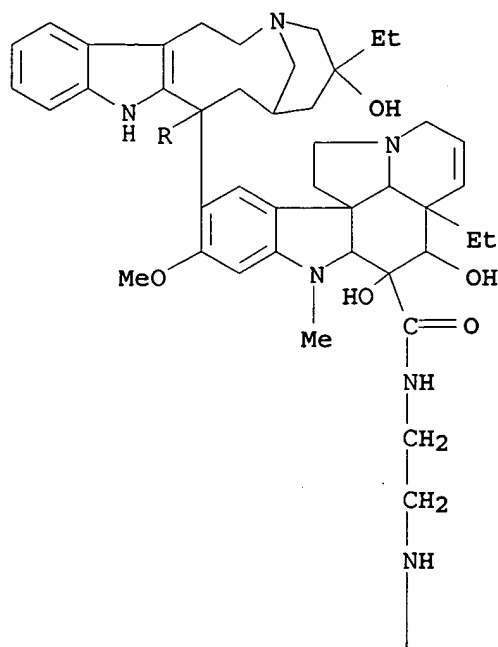
● 2 Cl<sup>-</sup>

PAGE 1-B

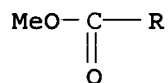
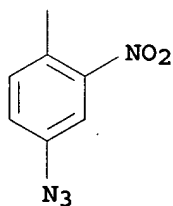


RN 126443-96-7 HCAPLUS  
 CN Vincaleukoblastine, 3-[[[2-[(4-azido-2-nitrophenyl)amino]ethyl]amino]carbonyl]-O4-deacetyl-3-de(methoxycarbonyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



INCL 424468000

CC 63-6 (Pharmaceuticals)

IT Hair preparations

(growth stimulants; novel dosage form comprising modified-release and immediate-release active ingredients)

IT Dyes

(tellurapyrylium; novel dosage form comprising modified-release and immediate-release active ingredients)

IT 56219-57-9, Arildone 56281-36-8, Motretinide 56290-94-9,  
 Medroxalol 56383-05-2, Zindotrine 56391-55-0, Octazamide  
 56391-57-2, Netilmicin sulfate 56420-45-2, Epirubicin  
 56430-99-0, Flumecinol 56470-64-5, Anordrin 56605-16-4D,

Spiromustine, di-Ph derivs. 56611-65-5, Oxagrelate 56689-42-0,  
 Repromicin 56689-44-2, Nitramisole hydrochloride 56717-18-1,  
 Isotiquimide 56741-95-8, Bropirimine 56784-39-5, Ozolinone  
 56796-20-4, Cefmetazole 56917-29-4, Fluretofen 56980-93-9,  
 Celiprolol 56995-20-1, Flupirtine 57010-32-9, Tiapamil  
 hydrochloride 57041-67-5, Desflurane 57067-46-6, Isamoxole  
 57109-90-7, Clorazepate dipotassium 57149-07-2, Naftopidil  
 57166-13-9, Napactadine hydrochloride 57248-88-1, Pamidronate  
 disodium 57262-94-9, Setiptiline 57285-09-3, Folliculostatin  
 57381-26-7, Irsogladine 57432-61-8, Methylergonovine maleate  
 57441-90-4, Nivimedone sodium 57540-79-1, Nisbuterol mesylate  
 57645-05-3, Sermetacin 57653-26-6, Fenobam 57666-60-1,  
 Nitrafudam hydrochloride 57726-65-5, Nufenoxole 57773-63-4,  
 Triptorelin 57773-65-6, Deslorelin 57775-22-1, Etoferidone  
 hydrochloride 57781-15-4, Halopredone 57801-81-7, Brotizolam  
 57808-65-8, Closantel 57982-78-2, Budipine 57998-68-2,  
 Diaziquone 58019-50-4, Menabitan hydrochloride 58019-65-1,  
 Nabazenil 58066-85-6, Miltefosine 58152-03-7, Isepamicin  
 58167-78-5, Tandamine hydrochloride 58239-89-7, Moxazocine  
 58261-91-9, Mefenidil 58473-74-8, Cinromide 58493-49-5,  
 Olvanil 58497-00-0, Procinonide 58503-79-0, Meobentine sulfate  
 58524-83-7, Ciprocinnonide 58525-82-9, Azatyrosine 58581-89-8,  
 Azelastine 58712-69-9, Traxanox 58795-03-2, Apalcillin sodium  
 58934-46-6, Lorcainide hydrochloride 58944-73-3, Sinefungin  
 58957-92-9, Idarubicin 58970-76-6, Ubenimex 59017-64-0,  
 Ioxaglic acid 59018-13-2, Ioxaglate meglumine 59070-06-3,  
 Ticarcillin cresyl sodium 59122-46-2, Misoprostol 59160-29-1,  
 Lidofenin 59170-23-9, Bevantolol 59179-95-2, Lorzafone  
 59227-89-3, Laurocapram 59263-76-2, Meptazinol hydrochloride  
 59333-90-3, Exaprolol hydrochloride 59467-96-8, Midazolam  
 hydrochloride 59497-39-1, Naflocort 59653-73-5, Teroxirone  
 59703-84-3, Piperacillin sodium 59729-33-8, Citalopram  
 59733-86-7, Butikacin 59756-39-7, Enolicam sodium 59794-18-2,  
 Paulomycin 59803-98-4, Brimonidine 59804-37-4, Tenoxicam  
 59831-63-9, Doconazole 59831-64-0, Milenperone 59831-65-1,  
 Halopemide 59917-39-4, Vindesine sulfate 59937-28-9,  
 Malotilate 59954-01-7, Pamatolol sulfate 60019-19-4, Iotetric  
 acid 60050-95-5, Sulfoxamine 60084-10-8, Tiazofurin  
 60086-22-8, Clopiazan mesylate 60135-22-0, Flumoxonide  
 60142-96-3, Gabapentin 60166-93-0, Iopamidol 60200-06-8,  
 Clorsulon 60207-31-0, Azacozazole 60209-20-3, Lycetamine  
 60282-87-3, Gestodene 60325-46-4, Sulprostone 60398-23-4,  
 Iodoamiloride 60400-92-2, Proxicromil 60525-15-7, Zimelidine  
 hydrochloride 60560-33-0, Pinacidil 60569-19-9, Propiverine  
 60607-34-3, Oxatomide 60607-35-4, Topterone 60628-96-8,  
 Bifonazole 60653-25-0, Orpanoxin 60719-84-8, Amrinone  
 60719-85-9, Ciprefadol succinate 60762-57-4, Pirlindole  
 60857-08-1, Prostratin 60925-61-3, Ceforanide 60940-34-3,  
 Ebselen 60976-05-8 61036-62-2, Teicoplanin 61177-45-5,  
 Clavulanate potassium 61220-69-7, Tiopinac 61260-05-7,  
 Prenalterol hydrochloride 61263-35-2, Meteneprost 61270-78-8,  
 Cefonicid sodium 61318-91-0, Sulconazole nitrate 61325-80-2,  
 Flumezapine 61379-65-5, Rifapentine 61380-27-6, Carfentanil  
 citrate 61380-41-4, Lofentanil oxalate 61413-54-5, Rolipram  
 61444-62-0, Nifluridide 61477-94-9, Pirmenol hydrochloride  
 61481-30-9, Dicranin 61484-39-7, Pareptide sulfate 61489-71-2,  
 Menotropin 61570-90-9, Tioxidazole 61622-34-2, Cefotiam  
 61825-94-3, Oxaliplatin 61849-14-7, Epoprostenol sodium  
 61869-08-7, Paroxetine 62013-04-1, Dirithromycin 62087-72-3,  
 Pentigetide 62134-34-3, Butoprozine hydrochloride 62220-58-0,

Bipenamol hydrochloride 62265-68-3, Quinfamide 62304-98-7,  
 Thymalfasin 62435-42-1, Perfosfamide 62488-57-7 62571-86-2,  
 Captopril 62571-87-3, Minaxolone 62587-73-9, Cefsulodin  
 62613-82-5, Oxiracetam 62625-19-8, Pirogliride tartrate  
 62658-63-3, Bopindolol 62666-20-0, Progabide 62732-44-9,  
 Ipidacrine 62816-98-2, Ormaplatin 62851-43-8,  
 Zidometacin 62893-20-3, Cefoperazone sodium 62928-11-4,  
 Iproplatin 62929-91-3, Procaterol hydrochloride 62973-76-6,  
 Azanidazole 62973-77-7, Parconazole hydrochloride 62989-33-7,  
 Sapropterin 62996-74-1, Staurosporine 63119-27-7, Anitrazafen  
 63198-97-0, Viroxime 63204-23-9, Oxmetidine hydrochloride  
 63245-28-3, Etifenin 63251-39-8, Sulfinalol hydrochloride  
 63269-31-8, Ciramadol 63358-49-6, Aspoxicillin 63534-64-5,  
 Iosulamide meglumine 63585-09-1, Foscarnet sodium 63590-19-2,  
 Balanol 63590-64-7, Terazosin 63612-50-0, Nilutamide  
 63659-18-7, Betaxolol 63659-19-8, Betaxolol hydrochloride  
 63675-72-9, Nisoldipine 63774-77-6, Somatomedin B 63941-73-1,  
 Ioglucol 63941-74-2, Ioglucomide 63950-06-1, Esorubicin  
 hydrochloride 64019-93-8, Dipivefrin hydrochloride 64059-66-1,  
 Cetaben sodium 64063-83-8, Picotrin diolamine 64092-48-4,  
 Zomepirac sodium 64211-45-6, Oxiconazole 64221-86-9, Imipenem  
 64228-81-5, Atracurium besylate 64318-79-2, Gemeprost  
 64379-93-7, Cinflumide 64420-40-2, Etibendazole 64461-82-1,  
 Tizanidine hydrochloride 64485-93-4, Cefotaxime sodium  
 64706-54-3, Bepridil 64808-48-6, Lobenzarit sodium 64872-77-1,  
 Butoconazole nitrate 64924-67-0, Halofuginone hydrobromide  
 64953-12-4, Moxalactam disodium 65009-35-0, Lidamidine  
 hydrochloride 65043-22-3, Indeloxazine hydrochloride  
 65052-63-3, Cefetamet 65057-90-1, Talisomycin 65093-40-5,  
 Cytarabine ocfosfate 65141-46-0, Nicorandil 65222-35-7,  
 Pazelliptine 65271-80-9, Mitoxantrone 65277-42-1, Ketoconazole  
 65322-72-7, Endralazine mesylate 65454-13-9, Lateritin  
 65473-14-5, Naftifine hydrochloride 65511-42-4, Nantradol  
 hydrochloride 65573-02-6, Impromidine hydrochloride  
 65646-68-6, Fenretinide 65652-44-0, Pirbuterol acetate  
 65717-97-7, Disofenin 65807-02-5, Goserelin 65847-85-0,  
 Morniflumate 65886-71-7, Fazarabine 65899-73-2, Tioconazole  
 65928-58-7, Dienogest 65950-99-4, Pirquinozol 66085-59-4,  
 Nimodipine 66104-22-1, Pergolide 66108-95-0, Iohexol  
 66148-78-5, Temocillin 66172-75-6, Verofylline 66195-31-1,  
 Ibopamine 66292-52-2, Butilfenin 66292-53-3, Iprofenin  
 66357-35-5, Ranitidine 66357-59-3, Zantac 66364-74-7,  
 Enpiroline phosphate 66504-75-4, Bicifadine hydrochloride  
 66537-94-8, Cyproximide 66564-14-5, Cinitapride 66569-27-5,  
 Sparfosate sodium

(novel dosage form comprising modified-release and  
 immediate-release active ingredients)

IT 89672-11-7, Cioterone 89778-26-7, Toremfene 89786-04-9,  
 Tazobactam 89797-00-2, Iopentol 89943-82-8, Cicletanine  
 89987-06-4, Tiludronic acid 90055-97-3, Tienoxolol 90182-92-6,  
 Zacopride 90243-66-6, Montirelin 90274-23-0, Zaltidine  
 hydrochloride 90293-01-9, Bifemelane 90357-06-5, Bicalutamide  
 90729-41-2, Oxodipine 90729-43-4, Ebastine 90733-42-9,  
 Edifolone acetate 90779-69-4, Atosiban 90849-08-4, Oximonam  
 sodium 90850-05-8, Gloximomam 90898-90-1, Oximonam  
 90996-54-6, Rhizoxin 91077-32-6, Dezinamide 91161-71-6,  
 Terbinafine 91296-86-5, Difloxacin hydrochloride 91296-87-6,  
 Sarafloxacin hydrochloride 91374-21-9, Ropinirole 91406-11-0,  
 Esuprone 91431-42-4, Lonapalene 91524-15-1, Irloxacin  
 91524-18-4, Azumolene sodium 91587-01-8, Pelretin 91618-36-9,

Ibafloxacin 91714-94-2, Bromfenac 91832-40-5, Cefdinir  
 92047-76-2, Tetrachlorodecaoxide 92118-27-9, Fotemustine  
 92236-42-5, Glutapyrone 92339-11-2, Iodixanol 92623-84-2,  
 Pravadoline maleate 92623-85-3, Milnacipran 92665-29-7,  
 Cefprozil 92788-10-8, Rogletimide 92803-82-2, Aphidicolin  
 glycinate 92812-82-3, Fluorodopaf18 92817-10-2,  
 16- $\alpha$ -Fluoroestradiol 93047-39-3, Etanterol 93135-89-8,  
 Methoxatone 93221-48-8, Levobetaxolol 93390-81-9, Fosphenytoin  
 93413-69-5, Venlafaxine 93479-97-1, Glimepiride 93738-40-0,  
 Ralitoline 93957-54-1, Fluvastatin 93957-55-2, Fluvastatin  
 sodium 94079-80-8, Cicaprost 94168-98-6, Rifametan  
 94535-50-9, Levromakalim 94651-09-9, Cicloprolol 94739-29-4,  
 Lemildipine 94820-09-4, Cadexomer iodine 94841-17-5, Spirapril  
 hydrochloride 95058-81-4, Gemcitabine 95153-31-4,  
 Perindoprilat 95190-13-9, Tetrazolast meglumine 95232-68-1,  
 Tenosal 95233-18-4, Atovaquone 95399-71-6, Fosinoprilat  
 95522-45-5, Colestimide 95635-55-5, Ranolazine 95671-26-4,  
 Tipentoin hydrochloride 95733-03-2, Daphnodorin A 95734-82-0,  
 Nedaplatin 95847-70-4, Ipsapirone 95896-08-5, Anaritide  
 96036-03-2, Meropenem 96128-92-6, Clentiazem maleate  
 96201-88-6, Brequinar sodium 96301-34-7, Atamestane  
 96346-61-1, Onapristone 96389-68-3, Crisnatol 96392-96-0,  
 Dexormaplatin 96449-05-7, Rispenzepine 96604-21-6, Ocinaaplone  
 96609-16-4, Lifibrol 96736-12-8 96829-58-2, Orlipastat  
 96892-57-8, Hepsulfam 96946-42-8, Cisatracurium besilate  
 97048-13-0, Urofollitropin 97068-30-9, Elsamitrucin  
 97240-79-4, Topiramate 97322-87-7, Troglitazone 97519-39-6,  
 Ceftibuten 97534-21-9, Merbarone 97548-97-5, Quinelorane  
 hydrochloride 97682-44-5, Irinotecan 97772-98-0, Butedronate  
 tetrasodium 97919-22-7 97938-30-2, Vexibinol 97964-56-2,  
 Lorglumide 98048-97-6, Fosinopril 98079-51-7, Lomefloxacin  
 98116-53-1, Sulukast 98206-10-1, Flesinoxan 98319-26-7,  
 Finasteride 98383-18-7, Ecomustine 98449-05-9, Butixocort  
 propionate 98569-62-1, Mallotochromene 98631-95-9, Sobuzoxane  
 99009-20-8, Pyrazoloacridine 99011-02-6, Imiquimod 99107-52-5,  
 Bunaprolast 99149-95-8, Saruplase 99156-66-8, Barmastine  
 99248-33-6, Seglitide acetate 99258-56-7, Oxamisole  
 99283-10-0, Molgramostim 99287-30-6, Egualein 99291-25-5,  
 Levodropropizine 99294-94-7, Teriparatide acetate 99464-64-9,  
 Ampiroxicam 99519-84-3, Carboxyamidotriazole 99592-32-2,  
 Sertaconazole 99614-02-5, Ondansetron 99665-00-6, Flomoxef  
 99705-65-4, Naxagolide hydrochloride 99759-19-0, Tiqueside  
 99821-44-0, Nasaruplase 100188-33-8, Piridronate sodium  
 100324-81-0, Lisofylline 100427-26-7, Lercanidipine  
 100490-36-6, Tosufloxacin 100643-96-7, Indolidan 100981-43-9,  
 Ebrotidine 100986-85-4, Levofloxacin 101001-34-7, Pamicogrel  
 101246-66-6, Phenserine 101246-68-8, Eptastigmine 101363-10-4,  
 Rufloxacin 101477-55-8, Lomerizine 101526-83-4, Sematilide  
 101530-10-3, Lanoconazole 101828-21-1, Butenafine 102394-31-0,  
 Otenzepad 102396-24-7, Jasplakinolide 102426-96-0, Paldimycin  
 102583-46-0, Detirelix acetate 102625-70-7, Pantoprazole  
 102669-89-6, Saterinone 102670-59-7, Batanopride hydrochloride  
 102676-47-1, Fadzole 102767-28-2, Levetiracetam 102822-56-0,  
 Mannostatin A 102908-59-8, Binospirone 102916-21-2, Tigemonam  
 dicholine 103060-53-3, Daptomycin 103222-11-3, Vapreotide  
 103255-66-9, Pazinaclone 103336-05-6, Ditekiren 103337-74-2,  
 Letrazuril 103379-03-9, Monatepil maleate 103420-77-5,  
 Devazepide 103475-41-8, Tepoxalin 103486-79-9, Belfosdil  
 103541-15-7, Clausenamide 103577-45-3, Lansoprazole  
 103614-76-2, Halichondrin B 103628-46-2, Sumatriptan

103745-39-7, Fasudil 103775-10-6, Moexipril 103878-84-8,  
 Lazabemide 103890-78-4, Lacidipine 103909-75-7,  
 22-Oxacalcitriol 104054-27-5, Atipamezole 104153-37-9,  
 Rilopirox 104227-87-4, Famciclovir 104340-86-5, Leminoprazole  
 104383-17-7, Sabeluzole 104393-00-2, Pirazmonam sodium  
 104454-71-9, Ipenoxazone 104456-95-3, Cisconazole 104595-79-1,  
 Anaritide acetate 104713-75-9, Barnidipine 104719-71-3,  
 Lorcinadol 104775-36-2, Ecabapide 104987-11-3, Tacrolimus  
 105102-18-9, Tibenelast sodium 105102-22-5, Mometasone  
 105118-12-5, Piroxantrone hydrochloride 105149-04-0, Osaterone  
 105182-45-4, Fluparoxan 105219-56-5, Apafant 105250-86-0,  
 Ebiratide 105431-72-9, Linopirdine 105462-24-6, Risedronic  
 acid 105567-83-7, Berefrine 105613-48-7, Exametazime  
 105615-58-5, Oxaunomycin 105687-93-2, Sumarotene 105705-89-3,  
 Vinburnine citrate 105784-61-0, Temafloxacin hydrochloride  
 105806-65-3, Efegatran 105851-17-0, Fludeoxyglucosef18  
 105889-45-0, Cefcapene pivoxil 105913-11-9, Plasminogen  
 activator 105920-77-2, Camonagrel 105956-97-6, Clinafloxacin  
 105979-17-7, Benidipine 106243-16-7, Thioperamide 106266-06-2,  
 Risperdal 106282-98-8, Somalapor 106400-81-1, Lometrexol  
 106463-17-6, Tamsulosin hydrochloride 106498-99-1, Vintoperol  
 106516-24-9, Sertindole 106560-14-9, Faropenem 106602-62-4,  
 Amylin 106730-54-5, Olprinone 106861-44-3, Mivacurium  
 chloride 107000-34-0, Zanterone 107167-31-7, Lactivicin  
 107266-08-0, Carvotroline 107361-33-1, Enazadrem 107407-62-5,  
 Nelezaprine maleate 107429-63-0, Lintopride 107703-78-6,  
 Glemanserin 107724-20-9, Epoxymexrenone 107753-78-6,  
 Zafirlukast 107793-72-6, Ioxilan 107868-30-4, Exemestane  
 107902-67-0, Tazofelone 108073-62-7, Carbazomycin C  
 108310-20-9, Pirodomast 108609-34-3, Lixazinone sulfate  
 108612-45-9, Mizolastine 108674-87-9, Sergolexole maleate  
 108700-03-4, Teludipine hydrochloride 108736-35-2, Lanreotide  
 108778-82-1, Beractant 108852-90-0, Nemorubicin 108945-35-3,  
 Taprostene

(novel dosage form comprising modified-release and  
 immediate-release active ingredients)

IT 109214-55-3, Libenzapril 109229-58-5, Englitzazone 109543-76-2,  
 Romazarit 109636-76-2, Prinomide tromethamine 109837-67-4,  
 Cycloplatam 109889-09-0, Granisetron 110101-66-1, Tirilazad  
 110140-89-1, Ridogrel 110267-81-7, Amrubicin 110311-27-8,  
 Sulofenur 110347-85-8, Selfotel 110588-56-2, Noberastine  
 110588-57-3, Saperconazole 110623-33-1, Suritozole  
 110690-43-2, Emitefur 110703-94-1, Zopolrestat 110845-89-1,  
 Remiprostol 110871-86-8, Sparfloxacin 111011-63-3, Efonidipine  
 111025-46-8, Pioglitazone 111073-18-8, Nemazoline hydrochloride  
 111149-90-7, Lodelaben 111212-85-2, Ersofermin 111223-26-8,  
 Ceronapril 111406-87-2, Zileuton 111490-36-9, Zeniplatin  
 111523-41-2, Enloplatin 111672-14-1, Rocastine hydrochloride  
 111686-79-4, Remacemide hydrochloride 111753-73-2, Satigrel  
 111786-07-3, Prinoxodan 111902-57-9, Temocapril 111974-60-8,  
 Ritolukast 111974-69-7, Quetiapine 112018-00-5, Tebufelone  
 112018-01-6, Bemoradan 112192-04-8, Roxindole 112243-58-0,  
 Gevotroline hydrochloride 112344-52-2, Flobufen 112362-50-2,  
 Dalfopristin 112515-43-2, Topsentin 112522-64-2,  
 Acetyldinaline 112573-73-6, Ecadotril 112733-06-9, Zenarestat  
 112809-51-5, Letrozole 112856-44-7, Losigamone 112859-71-9,  
 Fluasterone 112885-41-3, Mosapride 112887-68-0, Raltitrexed  
 112893-26-2, Becliconazole 112922-55-1, Cericlamine  
 112924-45-5, Sinnabidiol 112964-97-3, Ocfentanil hydrochloride  
 112965-21-6, Calcipotriene 113082-98-7, Enalkiren 113102-19-5,

Rifamexil 113108-86-4, Suronacrine maleate 113359-04-9,  
 Cefozopran 113378-31-7, Semduramicin 113427-24-0, Epoetin alfa  
 113471-15-1 113558-15-9, Baohuoside 1 113593-34-3, Flosatidil  
 113658-85-8, Trombodipine 113662-23-0, Gadobeninc acid  
 113665-84-2, Clopidogrel 113775-47-6, Dexmedetomidine  
 113806-05-6, Olopatadine 113852-37-2, Cidofovir 113932-41-5,  
 Tematropium methyl sulfate 113957-09-8, Cebaracetam  
 114030-44-3, Dexpemedolac 114084-78-5, Ibandronic acid  
 114118-91-1, Tirandalydigin 114285-68-6, Lentinan sulfate  
 114298-18-9, Zalospirone 114317-44-1, Magainin 2 amide  
 114432-13-2, Fantofarone 114517-02-1, Fosquidone 114716-16-4,  
 Pemedolac 114798-26-4, Losartan 114977-28-5, Docetaxel  
 115103-54-3, Tiagabine 115150-59-9, Antagonist G 115256-11-6,  
 Dofetilide 115308-98-0, Tallimustine 115436-72-1, Risedronate  
 sodium 115436-73-2, Ipazilide 115566-02-4, Bistratene A  
 115575-11-6, Liarozole 115743-28-7, Curdlan sulfate  
 115762-17-9, Ruzadolane 115956-12-2, Dolasetron 116057-75-1,  
 Idoxifene 116078-65-0, Bidisomide 116287-14-0, Lanperisone  
 116290-93-8, Hatomamicin 116313-94-1, Nitecapone 116476-13-2,  
 Semotiadil 116523-57-0, Desoxoamiodarone 116644-53-2,  
 Mibefradil 116649-85-5, Ramatroban 116666-63-8, Mibefradil  
 dihydrochloride 116684-92-5, Galdanetron 116818-99-6,  
 Isalsteine 116853-25-9, Cefluprenam 116907-13-2, Risotilide  
 hydrochloride 117048-59-6, Combretastatin A4 117086-68-7,  
 Ricasetron 117211-03-7, Cefetecol 117268-95-8, Brifentanil  
 hydrochloride 117467-28-4, Cefditoren pivoxil 117523-47-4;  
 Mirfentanil 117545-11-6, Bimakalim 117581-05-2, Serazapine  
 hydrochloride 117827-81-3, Delfaprazine 117857-45-1,  
 Loreclezole 117946-91-5, Luzindole 117976-90-6, Rabeprazole  
 sodium 118072-93-8, Zoledronic acid 118288-08-7, Lafutidine  
 118292-40-3, Tazarotene 118353-05-2, Carbovir 118395-73-6,  
 Chloroorienticin A 118457-14-0, Nebivolol 118635-52-2,  
 Tilnoprofen arbamel 118909-22-1, Velnacrine maleate  
 119006-77-8, Flutrimazole 119129-70-3, Ananain 119169-78-7,  
 Epristeride 119257-34-0, Besipirdine 119302-91-9, Rocuronium  
 bromide 119413-54-6, Topotecan hydrochloride 119413-55-7,  
 Elgodipine 119422-08-1 119431-25-3, Eliprodil 119509-26-1,  
 Atpenin B 119514-66-8, Lifarizine 119625-78-4, Terlakiren  
 119683-68-0, Ferumoxides 119693-74-2, Somenopor 119758-39-3,  
 Maduramicin 119813-10-4, Carzelesin 119817-90-2,  
 Dexloxiglumide 119905-05-4, Delequamine 119914-60-2,  
 Grepafloxacin 120066-54-8, Gadoteridol 120128-20-3, RG 12525  
 120138-50-3, Quinupristin 120210-48-2, Tenidap 120287-85-6,  
 Cetorelix 120360-10-3, Batelapine maleate 120373-24-2,  
 Isopropyl unoprostone 120410-24-4, Biapenem 120443-16-5,  
 Verlukast 120444-71-5, Deramciclanc 120500-15-4, Leinamycin  
 120511-73-1, Anastrozole 120551-59-9, Crilvastatin  
 120635-25-8, Mofegiline hydrochloride 120635-74-7, Cilansetron  
 120656-93-1, Trefentanil hydrochloride 120685-11-2,  
 Benzoylstauroporine 120788-07-0, Sulopenem 120824-08-0,  
 Linotroban 120993-53-5, Desirudin 121181-53-1, Filgrastim  
 121249-14-7, Corticorelin ovine triflutate 121263-19-2,  
 Calphostin C 121281-41-2, Technetium Tc 99 m bicisate  
 121288-39-9, Loxoribine 121547-04-4, Mirimostim 121650-80-4,  
 Pancopride 121679-13-8, Naratriptan 121749-39-1 121808-62-6,  
 Pidotimod 121929-46-2, Zoniclezole hydrochloride 122312-54-3,  
 Epoetin beta 122341-38-2, Temoporfin 122431-96-3  
 122535-63-1,  $\alpha$ -Citreamicin 122566-70-5, Maniwamycin A  
 122575-28-4, Naglivan 122647-32-9, Ibutilide fumarate  
 122841-10-5, Cefoselis 122898-63-9, Phenazinomycin

122898-67-3, Itopride 122946-43-4, Telmestaine 122955-18-4,  
 Sibopirdine 123039-93-0, Dihydropyridine 123040-69-7, Azasetron  
 123072-45-7, Aprosulat sodium 123122-54-3, Candoxatrilat  
 123122-55-4, Candoxatril 123258-84-4, Itasetron 123308-22-5,  
 Sezolamide 123407-36-3, Arteflene 123447-62-1, Prulifloxacin  
 123482-22-4, Zatosetron 123482-23-5, Zatosetron maleate  
 123524-52-7, Azelnidipine 123618-00-8, Fedotozine 123774-72-1,  
 Sargramostim 123830-79-5, Teloxantrone hydrochloride  
 123948-87-8, Topotecan 124012-42-6, Galocitabine 124423-84-3,  
 Panadiplon 124436-59-5, Pirodavis 124439-07-2, Enadoline  
 hydrochloride 124508-99-2, Sulfinosine 124770-85-0, Cyclobut A  
 124784-31-2, Erbulozole 124832-26-4, Valaciclovir 124858-35-1,  
 Nadifloxacin 124904-93-4, Ganirelix 124916-54-7, Celikalim  
 125251-66-3, Arbutamine hydrochloride 125279-79-0, Ersentilide  
 125472-02-8, Mivazerol 125533-88-2, Mofarotene 125722-16-9,  
 Enofelast 125926-17-2, Sarpogrelate 126062-18-8, Cyclobut G  
 126100-97-8, Dimiracetam 126297-39-0, Lissoclinamide 7  
 126443-96-7, Napavin 126544-47-6, Ciclesonide  
 126595-07-1, Propagermanium 126825-36-3, Bertosamil  
 127000-20-8, Gadobenat dimeglumine 127045-41-4, Pazufloxacin  
 127294-70-6, Balofloxacin 127304-28-3, Linarotene 127502-06-1,  
 Tetrofosmin 127685-30-7, Seproxetine hydrochloride  
 127757-45-3, Cyclic HPMPC 127757-91-9, Regramostim  
 127759-89-1, Lobucavir 127779-20-8, Saquinavir 127785-64-2,  
 Aureobasidin A  
 (novel dosage form comprising modified-release and  
 immediate-release active ingredients)

L49 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

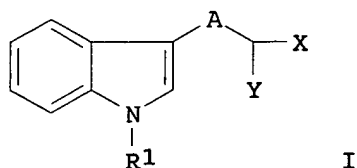
ACCESSION NUMBER: 2004:568551 HCAPLUS  
 DOCUMENT NUMBER: 141:111209  
 TITLE: Indole derivatives and their uses as  
 skin treatment agents  
 INVENTOR(S): Yokokawa, Yoshihiro; Takada, Keiko  
 PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004196699	A2	20040715	JP 2002-366387	2002 1218

PRIORITY APPLN. INFO.: JP 2002-366387  
 2002  
 1218

OTHER SOURCE(S): MARPAT 141:111209  
 GI



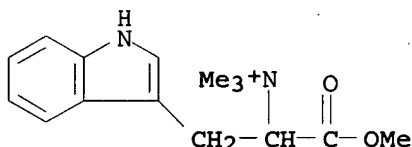


AB Indoles I [R1 = H, C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl; Y = N+R2R3R4.B-; R2-R4 = C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl; A = (CH2)n; n = 0-2; X = H, CO2R5; R5 = H, C1-4 alkyl; B = acid anion] or their salts, useful for **cosmetic** or topical preps., are claimed. Also claimed are antiaging agents, basement membrane treatment agents, and laminin 5 formation stimulators containing the indoles or I (Y = NR6R7, NHR8; R6-R8 = C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl). Tryptophan was treated with MeI to give I (R1 = H, A = CH2, X = CO2-, Y = N+Me3), which was added to a culture medium of human epidermal **keratinocytes** at 0.001% to result in 189% laminin 5 formation based on control.

IT 720663-59-2P  
(indole derivs. and their uses as **skin treatment agents**)

RN 720663-59-2 HCAPLUS

CN 1H-Indole-3-ethanaminium,  $\alpha$ -(methoxycarbonyl)-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



IC ICM C07D209-16

ICS A61K007-00; A61K007-025; A61K007-035; A61K007-48;  
A61K031-4045; A61K031-405; A61P017-00; A61P043-00; C07D209-20

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 27, 63

ST indole skin antiaging laminin formation stimulator;  
**cosmetic** indole antiaging laminin formation stimulator;  
topical indole quaternary ammonium antiaging

IT Laminins  
(5, formation stimulation; indole derivs. and their uses as **skin treatment agents**)

IT **Cosmetics**  
(antiaging; indole derivs. and their uses as **skin treatment agents**)

IT Basement membrane  
Human  
Psophocarpus tetragonolobus  
(indole derivs. and their uses as **skin treatment agents**)

IT Drug delivery systems  
(topical; indole derivs. and their uses as **skin treatment agents**)

IT 64363-86-6P

(indole derivs. and their uses as **skin treatment agents**)  
 IT 526-31-8P 17333-56-1P 720663-59-2P 720663-60-5P  
 726169-56-8P 726172-24-3P  
 (indole derivs. and their uses as **skin treatment agents**)  
 IT 61-54-1, Tryptamine 73-22-3, Tryptophan, reactions 7524-52-9,  
 Tryptophan methyl ester hydrochloride  
 (indole derivs. and their uses as **skin treatment agents**)

L49 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:529211 HCAPLUS

DOCUMENT NUMBER: 141:93966

TITLE: **Hair dyeing** compositions  
 containing a diheteroaryl methane direct  
**dye** or its leuco precursor

INVENTOR(S): Guerin, Frederic; Lagrange, Alain

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 51 pp.

CODEN: FRXXBL

DOCUMENT TYPE: **Patent**

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2849371	A1	20040702	FR 2002-16845	2002 1230
EP 1437122	A1	20040714	EP 2003-104983	2003 1226
JP 2004210783	A2	20040729	JP 2003-434421	2003 1226
US 2004187229	A1	20040930	US 2003-746501	2003 1229
PRIORITY APPLN. INFO.:			FR 2002-16845	A 2002 1230
			US 2003-450358P	P 2003 0228

OTHER SOURCE(S): MARPAT 141:93966

AB A **hair dyeing** composition comprises a compound chosen from the direct **dyes** of the diheteroaryl methane type and its leuco precursors. Thus, a formulation contained

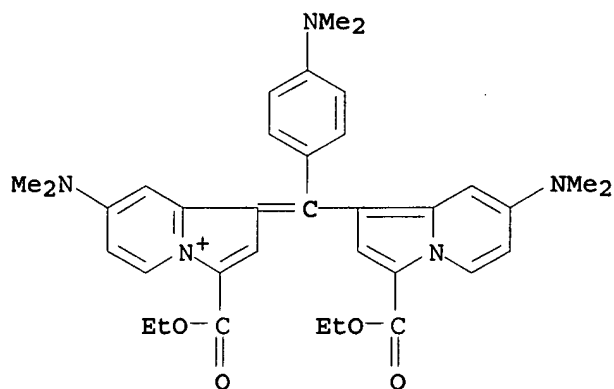
{4-[bis-(2-methyl-1H-indol-3-yl)methylene]cyclohexa-2,5-dienylidene}dimethylammonium chloride 0.427, benzyl alc. 4.0, PEG 6.0, hydroxyethyl cellulose 0.7, alkyl polyglucoside 4.5, phosphate buffer 7, and water qs to 100 g.

IT 371158-83-7 371158-84-8

(hair dyeing compns. containing  
diheteroaryl methane direct dye or its leuco  
precursor)

RN 371158-83-7 HCAPLUS

CN 1H-Indolizinium, 7-(dimethylamino)-1-[[7-(dimethylamino)-3-(ethoxycarbonyl)-1-indoliziny] [4-(dimethylamino)phenyl]methylene]-3-(ethoxycarbonyl)- (9CI) (CA INDEX NAME)



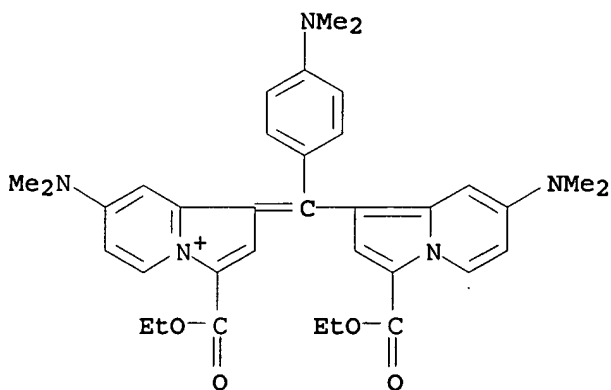
RN 371158-84-8 HCAPLUS

CN 1H-Indolizinium, 7-(dimethylamino)-1-[[7-(dimethylamino)-3-(ethoxycarbonyl)-1-indoliziny] [4-(dimethylamino)phenyl]methylene]-3-(ethoxycarbonyl)-, perchlorate (9CI) (CA INDEX NAME)

CM 1

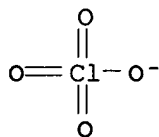
CRN 371158-83-7

CMF C35 H40 N5 O4



CM 2

CRN 14797-73-0  
CMF Cl 04



- IC ICM A61K007-13
- CC 62-3 (Essential Oils and Cosmetics)
- ST diheteroarylarmethane direct **dye hair**; leuco precursor diheteroarylarmethane **dye hair**
- IT Enzymes, biological studies  
(Unicase; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Azo **dyes**  
(acid; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Phenols, biological studies  
(amino; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Azo **dyes**  
**Dyes**  
(cationic; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Amines, biological studies  
(diamines, aromatic; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Azo **dyes**  
**Dyes**  
(direct; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Anthraquinone **dyes**  
**Dyes**  
**Hair**  
Human  
Oxidizing agents  
(**hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Bromates  
Peroxy acids  
Peroxy sulfates  
(**hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT **Dyes**  
(indamine; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)
- IT Group IIIA element compounds

(perborates; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)

IT Carboxylic acids, biological studies  
(peroxy; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)

IT Amines, biological studies  
(phenolic; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)

IT Amines, biological studies  
(phenylalkyl, diamines; **hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)

IT 95-55-6D, o-Aminophenol, derivs. 95-70-5, p-Toluenediamine 106-50-3, p-Phenylenediamine, biological studies 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 108-46-3D, Resorcinol, derivs. 123-30-8, p-Aminophenol 123-30-8D, p-Aminophenol, derivs. 124-43-6 591-27-5D, m-Aminophenol, derivs. 2088-76-8D, salts 2835-95-2, 5-Amino-2-methylphenol 7722-84-1, Hydrogen peroxide, biological studies 9003-99-0, Peroxidase 9035-73-8, Oxidase 9037-29-0, Oxygenase 14135-12-7 14696-49-2 14696-51-6 14696-52-7 14711-55-8 14776-13-7 15466-15-6 15466-16-7 15481-09-1 15724-52-4 16380-96-4 16380-97-5 16383-51-0 25981-21-9 34266-49-4 34269-60-8 47699-67-2 47771-90-4 47771-98-2 47790-54-5 47797-82-0 47797-84-2 47816-83-1 53812-11-6 53812-29-6 55009-14-8 55302-96-0 59526-51-1 59526-52-2 60414-63-3 61735-38-4 76080-64-3 76120-68-8 80498-15-3, Laccase 84606-92-8 89914-44-3 89914-47-6 90161-61-8 90161-62-9 90161-63-0 90161-64-1 90161-65-2 90161-66-3 90161-71-0 90161-72-1 90161-79-8 90161-80-1 90161-85-6 90161-86-7 90161-91-4 90161-92-5 90161-93-6 90161-94-7 90161-95-8 90161-96-9 90161-97-0 90161-98-1 97628-71-2 97628-72-3 97628-73-4 103928-27-4 103928-28-5 104927-31-3 104927-32-4 107117-76-0 119758-99-5 119759-00-1 120878-97-9 120878-98-0 122839-17-2 131942-35-3 131942-37-5 131942-45-5 131942-46-6 131942-51-3 131942-52-4 131942-54-6 132030-90-1 132054-25-2 150831-83-7 150831-84-8 150831-85-9 150831-86-0 253865-90-6 253865-92-8 253865-94-0 326809-79-4 326809-80-7 366451-86-7 366451-87-8 371158-83-7 371158-84-8 467222-93-1 467222-94-2 714229-15-9 714229-16-0 714229-17-1 714229-18-2 714229-19-3 714229-21-7 714229-22-8 714229-23-9

(**hair dyeing** compns. containing diheteroarylarmethane direct **dye** or its leuco precursor)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:512207 HCAPLUS  
 DOCUMENT NUMBER: 141:76342  
 TITLE: **Hair dye** compositions containing a tricationic direct **dye**  
 INVENTOR(S): Lagrange, Alain  
 PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 57 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848838	A1	20040625	FR 2002-16565	2002 1223
FR 2848838	B1	20050311		
EP 1433472	A1	20040630	EP 2003-293290	2003 1223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004187227	A1	20040930	US 2003-742801	2003 1223
JP 2004210777	A2	20040729	JP 2003-428263	2003 1224
PRIORITY APPLN. INFO.:			FR 2002-16565	A 2002 1223
			US 2003-468735P	P 2003 0508

OTHER SOURCE(S): MARPAT 141:76342

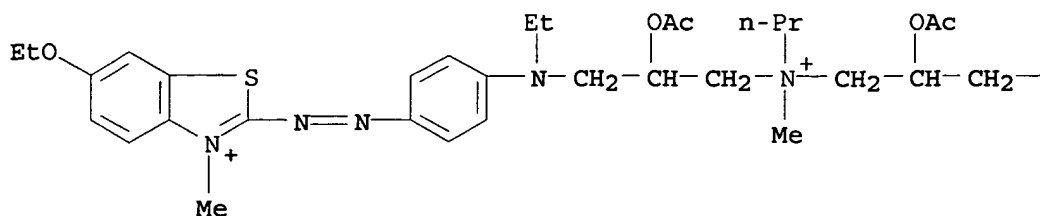
AB The dyeing of human keratin fibers and more particularly of the human hair comprises a direct tricationic dye containing e.g., azomethine, phenothiazine, triarylmethane, or xanthene groups. Thus, a formulation contained a tricationic benzothiazolium dye 1.06, oleic acid diethanolamide 3, lauric acid 1, ethylene glycol monoethyl ether 5, hydroxyethyl cellulose 2, 2-amino-2-methyl-1-propanol 9.5, and water qs to 100 g.

IT 41681-41-8  
 (hair dye compns. containing tricationic direct dye)

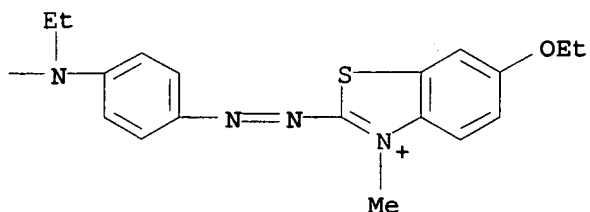
RN 41681-41-8 HCAPLUS

CN Benzothiazolium, 2,2'-[(methylpropyliminio)bis[[2-(acetyloxy)-3,1-propanediyl](ethylimino)-4,1-phenyleneazo]]bis[6-ethoxy-3-methyl-, trichloride (9CI) (CA INDEX NAME)

PAGE 1-A

● 3 Cl<sup>-</sup>

PAGE 1-B



- IC ICM A61K007-13  
 CC 62-3 (Essential Oils and Cosmetics)  
 ST **hair** tricationic direct **dye**; benzothiazolium  
 tricationic azo **dye** **hair**  
 IT Phenols, biological studies  
 (amino; **hair dye** compns. containing tricationic  
 direct **dye**)  
 IT Polyelectrolytes  
 Surfactants  
 (amphoteric; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT Polyelectrolytes  
 Surfactants  
 (anionic; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT **Azo dyes**  
**Dyes**  
 Polyelectrolytes  
 Surfactants  
 (cationic; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT Amines, biological studies  
 (diamines; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT **Dyes**  
 (direct; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT **Hair preparations**  
 (**dyes**; **hair dye** compns. containing  
 tricationic direct **dye**)  
 IT Quinones  
 (**dyes**; **hair dye** compns. containing

tricationic direct dye)  
 IT Anthraquinone dyes  
     Hair  
     Human  
     Oxidizing agents  
     Thickening agents  
         (hair dye compns. containing tricationic direct dye)  
 IT Alcohols, biological studies  
     (hair dye compns. containing tricationic direct dye)  
 IT Dyes  
     (indamine; hair dye compns. containing tricationic direct dye)  
 IT Surfactants  
     (nonionic; hair dye compns. containing tricationic direct dye)  
 IT Amines, biological studies  
     (phenolic; hair dye compns. containing tricationic direct dye)  
 IT Amines, biological studies  
     (phenylalkyl; hair dye compns. containing tricationic direct dye)  
 IT Alcohols, biological studies  
     (polyhydric; hair dye compns. containing tricationic direct dye)  
 IT Surfactants  
     (zwitterionic; hair dye compns. containing tricationic direct dye)  
 IT 95-55-6D, o-Aminophenol, derivs. 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 108-46-3D, Resorcinol, derivs. 123-30-8D, p-Aminophenol, derivs. 574-93-6D, Phthalocyanine, derivs. 591-27-5D, m-Aminophenol, derivs. 7722-84-1, Hydrogen peroxide, biological studies 41681-41-8 107004-44-4 107032-39-3  
     (hair dye compns. containing tricationic direct dye)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:411307 HCAPLUS  
 DOCUMENT NUMBER: 140:411989  
 TITLE: Use of latent pigments for hair coloring, composition containing the aforementioned pigments and methods for using them  
 INVENTOR(S): Lagrange, Alain; Kravtchenko, Sylvain; Greaves, Andrew  
 PATENT ASSIGNEE(S): L'oreal, Fr.  
 SOURCE: Fr. Demande, 40 pp.  
           CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2847162	B1	20050218		
EP 1426036	A1	20040609	EP 2003-292849	
				2003
				1118

JP 2004168779                      A2                      20040617                      JP 2003-390929                      <--                      2003  
1120

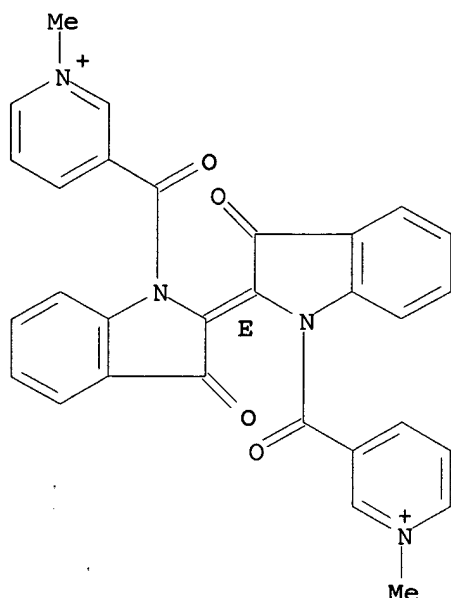
PRIORITY APPLN. INFO.:	FR 2002-14535	A	2002 1120
	US 2003-502655P	P	2003 0915

AB A latent, soluble pigment for dyeing of keratinous fibers is disclosed wherein the soluble pigment in fibers is transformed into insol. pigment in water by chemical, thermal, or photochem. process. The pigment has formula  $A(B)_x$  wherein A is a chromophoric radical, and B an atom of hydrogen or formula (I,  $MeCOFmYnF'mZ$ ), with Z representing a hydrosolubilizing cation  $Z^+$  or a polyethylene glycol residue, Y is a heteroatom, F and F' are a C1-14 linear or branched alkylene which can contain heteroatoms and can be substituted by one or more hydroxy, amino, or halogen group. Formulation of a hair dye containing a pigment breaking down to dipyrrolidinonylidene at  $pH > 7$  and producing indigo color is disclosed.

IT 95230-12-9  
(use of latent **pigments** for hair coloring,  
composition containing aforementioned **pigments** and methods for  
using them)

CN    Pyridinium, 3-[[[(2E)-2-[1,3-dihydro-1-[(1-methylpyridinium-3-yl)carbonyl]-3-oxo-2H-indol-2-ylidene]-2,3-dihydro-3-oxo-1H-indol-1-yl]carbonyl]-1-methyl- (9CI)    (CA INDEX NAME)

USHA SHRESTHA EIC 1700 REM 4B28



IC ICM A61K007-13  
 CC 62-3 (Essential Oils and Cosmetics)  
 ST hair coloring pigment pyrrolidinonylidene  
 IT Hair preparations  
   (dyes; use of latent pigments for  
   hair coloring, composition containing aforementioned  
   pigments and methods for using them)  
 IT Pigments, nonbiological  
   (use of latent pigments for hair coloring,  
   composition containing aforementioned pigments and methods for  
   using them)  
 IT 64784-13-0P  
   (use of latent pigments for hair coloring,  
   composition containing aforementioned pigments and methods for  
   using them)  
 IT 95230-12-9  
   (use of latent pigments for hair coloring,  
   composition containing aforementioned pigments and methods for  
   using them)  
 REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE  
   FOR THIS RECORD. ALL CITATIONS AVAILABLE  
   IN THE RE FORMAT

L49 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:220420 HCAPLUS  
 DOCUMENT NUMBER: 140:272716  
 TITLE: Formulations comprising water-soluble  
   granulates  
 INVENTOR(S): Dreyer, Pierre; Haiss, Elke; Iltis, Laure;  
   Kvita, Petr; Menge, Ullrich  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: PCT Int. Appl., 62 pp.  
   CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004022693	A1	20040318	WO 2003-EP9409	2003 0826
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003267010	A1	20040329	AU 2003-267010	2003 0826
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EP 1534814	A1	20050601	EP 2003-747927	2003 0826
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BR 2003014340	A	20050705	BR 2003-14340	2003 0826
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CN 1678728	A	20051005	CN 2003-820763	2003 0826
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JP 2005537370	T2	20051208	JP 2004-533402	2003 0826
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US 2005227891	A1	20051013	US 2005-526093	2005 0223
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PRIORITY APPLN. INFO.:			EP 2002-405766	A	2002 0904
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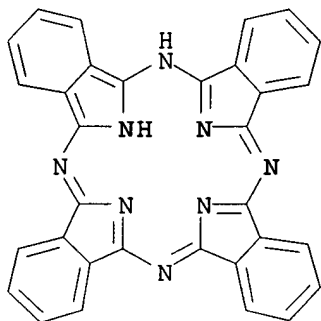
			WO 2003-EP9409	W	2003 0826
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OTHER SOURCE(S): MARPAT 140:272716

AB The present invention relates to (i) formulations comprising water-soluble granulates of phthalocyanine compds., (ii) a process for the preparation thereof, and (iii) the use thereof in washing agent

and washing agent additive formulations. Thus, a composition comprising 564 g 19.5% aqueous aluminum phthalocyanine solution 564 and 1857 g an aqueous solution containing 541 g anionic dispersing agent and 270 g sodium sulfate was stirred at 25° for 1 h and dried in a spray-dryer with inlet air temperature 190° and exhaust air temperature 105° to give a granulate with average particle d. 70 µm, bulk d. 520 g/L, and residual water content 6%, 0.03% of which was mixed with sodium laurylbenzenesulfonate 10, sodium laurylsulfate 3, Neodol 23-6.5E 4, zeolite A 25, sodium percarbonate 20, perfume 0.1, cellulose 1.5, CM-cellulose 2, sodium sulfate 15, sodium carbonate 10, and tetraacetyl ethylenediamine 3% to give a washing agent.

IT 21328-73-4, Calcium phthalocyanine  
(photoactivator; formulations comprising water-soluble granulates)  
RN 21328-73-4 HCAPLUS  
CN 29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)



● Ca

IC ICM C11D017-06  
ICS C11D003-39  
CC 46-5 (Surface Active Agents and Detergents)  
IT Bleaching agents  
Dispersing agents  
Dyes  
Fillers  
Fluorescent brighteners  
Pigments, nonbiological  
Textiles  
Wetting agents  
(formulations comprising water-soluble granulates)  
IT 132-16-1, Ferrous phthalocyanine 574-93-6D, Phthalocyanine, complexes 1661-03-6, Magnesium phthalocyanine 7440-21-3D, Silicon, phthalocyanine complex 7440-31-5D, Tin, phthalocyanine complex 7440-32-6D, Titanium, phthalocyanine complex 7440-47-3D, Chromium, phthalocyanine complex 7440-55-3D, Gallium, phthalocyanine complex 7440-56-4D, Germanium, phthalocyanine complex 7440-58-6D, Hafnium, phthalocyanine complex 7440-67-7D, Zirconium, phthalocyanine complex 7440-74-6D, Indium, phthalocyanine complex 7723-14-0D, Phosphorus, phthalocyanine complex 21328-73-4, Calcium phthalocyanine 25047-77-2 25476-27-1, Sodium phthalocyanine (photoactivator; formulations comprising water-soluble granulates)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L49 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:20884 HCAPLUS  
DOCUMENT NUMBER: 140:88773  
TITLE: Methods for detecting polymorphisms in human  
chromosome 19 associated with cancer and their  
use in diagnosis and therapy  
INVENTOR(S): Nexø, Bjørn Andersen; Vogel, Ulla;  
Rockenbauer, Eszter; Bukowy, Zuzanna Katarzyna  
PATENT ASSIGNEE(S): Aarhus Universitet, Den.; National Institute  
of Occupational Health  
SOURCE: PCT Int. Appl., 145 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004003229	A2	20040108	WO 2003-DK448	2003 0627

WO 2004003229 A3 20040527 <--  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,  
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
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DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,  
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG  
CA 2527588 AA 20040108 CA 2003-2527588  
2003  
0627

AU 2003243920	A1	20040119	AU 2003-243920	2003 0627
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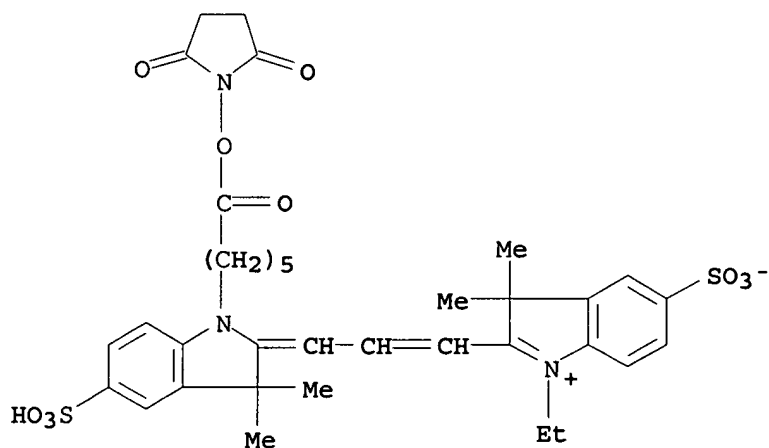
EP 1520046	A2	20050406	EP 2003-761445	2003 0627
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,  
EE, HU, SK

PRIORITY APPLN. INFO.: DK 2002-1005 A  
2002  
0627

DK 2002-1500	A	2002 1007
<--		
DK 2003-289	A	2003 0225
DK 2003-639	A	2003 0429
WO 2003-DK448	W	2003 0627

- AB The present invention provides methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy. In particular, this invention relates to the identification and characterization of polymorphisms in the human chromosome 19q, the region r located approx. 19q13.2-3 correlated with increased risk of developing disease, in particular cancer and the responsiveness of a subject to various treatments for cancer. An allele in the r region can be identified as correlated with an increased risk of developing disease, in particular cancer, the prognosis of developed disease, in particular cancer, and responsiveness to disease treatment, in particular cancer treatment on the basis of statistical analyses of the incidence of a particular allele in individuals diagnosed with disease, in particular cancer. The invention further relates to probes and kits comprising the probes useful in the diagnostic.
- IT 146368-16-3D, Cy3, probe conjugate  
(Cy3; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)
- RN 146368-16-3 HCAPLUS
- CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

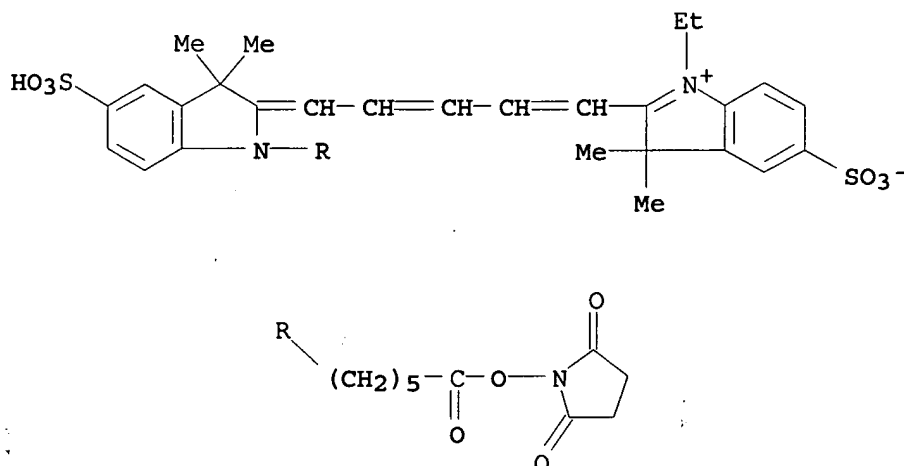


- IT 146368-14-1D, Cy5, probe conjugate

(Cy5; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM C12Q001-68

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 1, 14

IT Animal tissue

Body fluid

Egg

Hair

Leukocyte

Nail (anatomical)

Neoplasm

Semen

(screening; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

IT 146368-16-3D, Cy3, probe conjugate

(Cy3; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

IT 146368-14-1D, Cy5, probe conjugate

(Cy5; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

IT 58-85-5D, Biotin, probe conjugate 1672-46-4D, Digoxigenin, probe conjugate 3301-79-9D, 6-FAM, probe conjugate 6268-49-1D,

Dabcyl, probe conjugate 76823-03-5D, FAM, probe conjugate

82855-40-1D, JOE, probe conjugate 120718-39-0D, Rox, probe

conjugate 120718-52-7D, TAMRA, probe conjugate 155911-16-3D,

HEX, probe conjugate 169799-14-8D, Cy7, probe conjugate

192230-82-3D, TET (dye), probe conjugate 245670-26-2D,

LC Red 640, probe conjugate 251949-03-8D, LC-RED 705, probe conjugate

(methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

L49 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:609953 HCAPLUS  
 DOCUMENT NUMBER: 139:160749  
 TITLE: Methods for detecting nucleic acids using  
 universal probes and fluorescence quenching  
 INVENTOR(S): Nadeau, James G.; Linn, C. Preston; Pitner, J.  
 Bruce; Dean, Cheryl H.; Walker, G. Terrance  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont. of U.S.  
 Ser. No. 664,691, abandoned.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003148303	A1	20030807	US 2002-163862	2002 0605

PRIORITY APPLN. INFO.: <--  
 US 2000-664691 B1  
 2000  
 0919

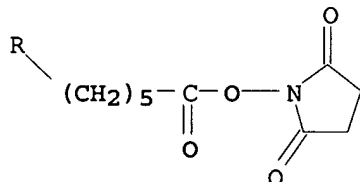
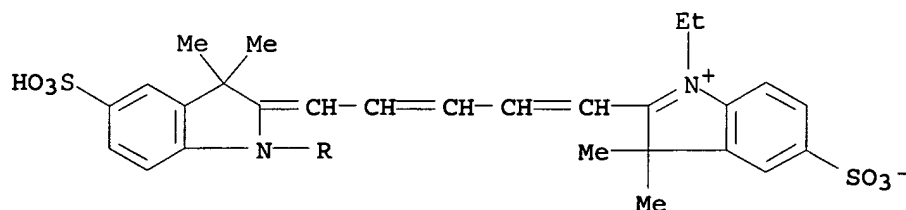
AB Signal primers are employed for detection of nucleic acid target sequences by fluorescence quenching mechanisms. The signal primer comprises a first adapter oligonucleotide and a second reporter probe oligonucleotide and is partially single-stranded and partially double-stranded. In the presence of target, the reporter probe of the signal primer is displaced from the adapter oligonucleotide and a conformational change in a reporter probe occurs which changes the distance between the members of a donor/quencher dye pair linked to the reporter probe. The change in proximity between the dyes causes an increase or a decrease in fluorescence quenching, which is detected as an indication of the presence of the target sequence. Strand Displacement Amplification assay for detection of a sequence is demonstrated. The strand displacement reaction led to release of the fluorescein- and DABCYL-labeled probe, formation of a hairpin structure by the probe, and fluorescence quenching.

IT 146368-14-1D, Cy5, probe conjugate  
 (Cy5; methods for detecting nucleic acids using universal probes and fluorescence quenching)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM C12Q001-68

INCL 435006000

CC 3-1 (Biochemical Genetics)

IT Conformation

(hairpin loop, probe; methods for detecting nucleic acids using universal probes and fluorescence quenching)

IT 146368-14-1D, Cy5, probe conjugate

(Cy5; methods for detecting nucleic acids using universal probes and fluorescence quenching)

L49 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:591438 HCAPLUS

DOCUMENT NUMBER: 139:130375

TITLE: Lateral flow quantitative assay method, device and strip with laser-induced fluorescence detection

INVENTOR(S): Nahm, Kie-bong; Choi, Eui-yeol; Jeong, Dong-seok; Jung, Jin-ha; Moon, Joung-dae; Kim, Young-min; Lee, Keun-woo; Ahn, Jae-soon; Jeong, Young-eui; Park, Sang-yeol; Kim, Hyun-mi; Lee, Byung-ryong

PATENT ASSIGNEE(S): Boditech Inc., S. Korea

SOURCE: PCT Int. Appl., 123 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062824	A1	20030731	WO 2003-KR151	2003 0123

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,

MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,  
 SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
 VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,  
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,  
 PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
 GW, ML, MR, NE, SN, TD, TG

KR 2003064321	A	20030731	KR 2003-4602	2003 0123
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KR 2003065341	A	20030806	KR 2003-4598	2003 0123
			<--	
US 2005214951	A1	20050929	US 2004-502378	2004 0723
			<--	
US 2005260666	A1	20051124	US 2005-138561	2005 0526
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PRIORITY APPLN. INFO.:			KR 2002-3995	A 2002 0123
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			KR 2002-5755	A 2002 0131
			<--	
			WO 2003-KR151	W 2003 0123
			US 2004-502378	A2 2004 0723

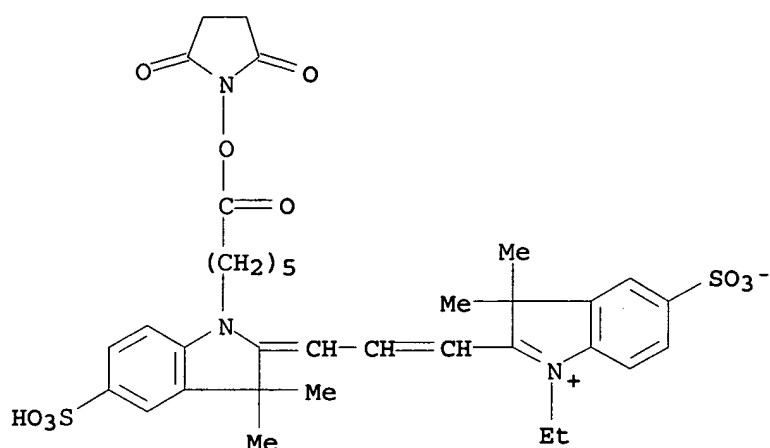
AB Method and apparatus for lateral flow quant. assay for bio-analytes are disclosed. The invention includes a highly sensitive bioassay strip for multiple analytes and its subsequent quantitation by an improved laser-induced epi-fluorescence detection apparatus featuring 10-12 g/mL as the lowest analyte concentration for detection. In addition, the lateral flow assay strip of the subject invention enables simultaneous quantitation of multiple analytes.

IT 146368-16-3, Cy3

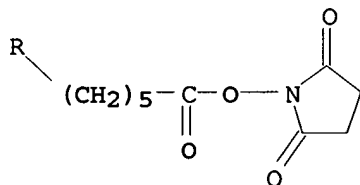
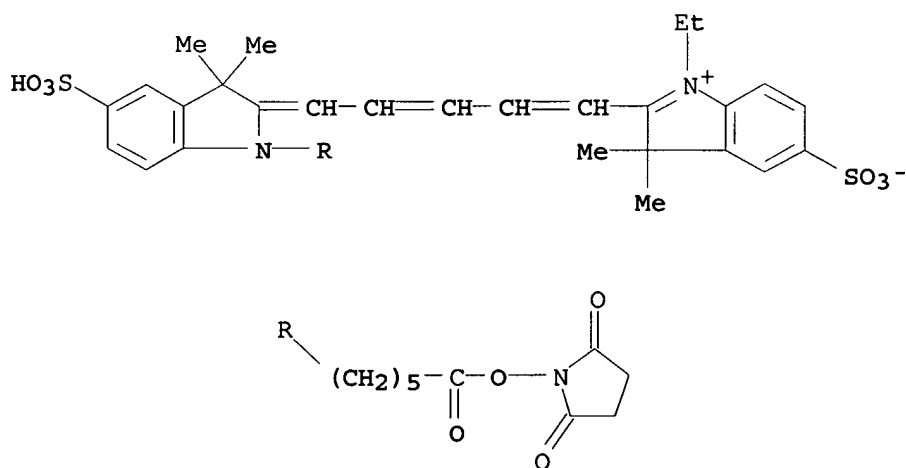
(Cy3; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)

RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT **146368-14-1, Cy5**  
 (Cy5; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)  
 RN 146368-14-1 HCAPLUS  
 CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM G01N033-543  
 CC 9-1 (Biochemical Methods)  
 IT **Keratins**  
 (19, fragment CYFRA21-1; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)  
 IT **Fluorescent dyes**  
 (Alexa series; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)  
 IT **Blood analysis**  
**Fluorescent dyes**  
**Fluorometry**  
 Immobilization, molecular or cellular

Lab-on-a-chip  
 (lateral flow quant. assay method, device and strip with  
 laser-induced fluorescence detection)  
 IT 146368-16-3, Cy3  
 (Cy3; lateral flow quant. assay method, device and strip with  
 laser-induced fluorescence detection)  
 IT 146368-14-1, Cy5  
 (Cy5; lateral flow quant. assay method, device and strip with  
 laser-induced fluorescence detection)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L49 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:317444 HCAPLUS  
 DOCUMENT NUMBER: 138:343853  
 TITLE: Preparation of compositions containing  
 pyridinium derivatives for cosmetic  
 and therapeutic applications  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India  
 SOURCE: Eur. Pat. Appl., 104 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1304101	A1	20030423	EP 2001-204295	2001 1112
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AU 766824	B2	20031023	AU 2001-31376	2001 0328
<--				
AU 2001031376	A5	20021003		
AU 2001089369	A5	20030501	AU 2001-89369	2001 1109
<--				
JP 2003137783	A2	20030514	JP 2001-344128	2001 1109
<--				
CN 1411809	A	20030423	CN 2001-137440	2001 1112
<--				
CN 1411800	A	20030423	CN 2001-137441	2001 1112
<--				
BR 2001005143	A	20040713	BR 2001-5143	2001

1112

CA 2361863

AA

20030419

&lt;--

CA 2001-2361863

2001

1113

PRIORITY APPLN. INFO.:

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IN 2001-CA605

A

2001

1019

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IN 2001-CA620

A

2001

1101

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OTHER SOURCE(S): MARPAT 138:343853

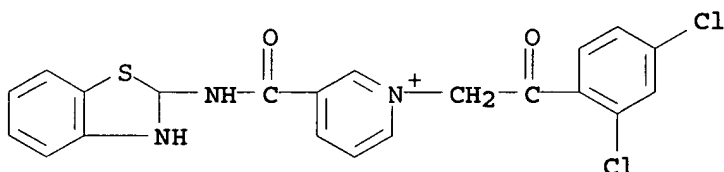
AB The invention discloses a new class of compds. particularly pyridinium derivs., which have been found to exhibit triple function of a free radical scavenger (antioxidant), AGE (advanced glycation end product) breaker and AGE inhibitor, and **cosmetic** composition comprising these compds. contained in a **cosmetically** acceptable carrier. The invention also discloses a method of **cosmetic** application by applying such compns. The invention further discloses a pharmaceutical composition, comprising the compds. useful in scavenging free radicals from the body cells of a mammal, a method of scavenging free radicals from the body cells of a mammal and a method of treating of diseases caused by accumulation of free radicals in the body cells of a mammal by administering a composition made with the compds. The invention in addition, also discloses composition and method for inhibiting AGE in a mammal by use of the compds. of the same group. Thus, a composition contained pyridinium compound 0.25, oleic acid 10.0, propylene glycol 70.0, Tween-80 0.1, and EtOH qs to 100.0%.

IT 515864-12-7P

(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

RN 515864-12-7 HCAPLUS

CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[2,3-dihydro-2-benzothiazolyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)

● Br<sup>-</sup>

IC ICM A61K007-48

ICS A61K031-44; A61P017-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 27, 62

ST pyridinium deriv **cosmetic** pharmaceutical prepn

IT Glycoproteins

- (AGE (advanced glycation end product); preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Nervous system, disease  
(Huntington's chorea; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Capillary vessel  
(Telangiectasia; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Skin, disease  
(aging, wrinkles; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Liver, disease  
(alc.; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Lung, disease  
(chronic obstructive pulmonary disease; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT **Cosmetics**  
(conditioners; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Nervous system, disease  
(degeneration; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Skin, disease  
(dry; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT **Cosmetics**  
Drug delivery systems  
(emollients; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Skin  
(epidermis, growth; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Acne  
Dandruff  
Seborrhea  
(inhibitors; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Drug delivery systems  
(lotions; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Eye, disease  
(macula, degeneration; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Nerve, disease  
(motor; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Drug delivery systems  
(oral; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Drug delivery systems  
(parenterals; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT Skin, disease  
(pigmentation; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
- IT AIDS (disease)  
Acne

Alzheimer's disease  
Analgesics  
Anesthetics  
Anti-inflammatory agents  
Antibacterial agents  
Anticoagulants  
Antihistamines  
Antioxidants  
Antiviral agents  
Asthma  
Cataract  
Coloring materials  
    **Cosmetics**  
Dentifrices  
Diabetes mellitus  
Emulsifying agents  
Eye, disease  
Fatigue, biological  
Fungicides  
    **Hair**  
Heart, disease  
Humectants  
Insect repellents  
Intestine, disease  
Kidney, disease  
Liver, disease  
Lubricants  
Mouthwashes  
Nail (anatomical)  
Neoplasm  
Odor and Odorous substances  
Oxidative stress, biological  
Parasitocides  
Parkinson's disease  
Perfumes  
Permeation enhancers  
Photoprotectants  
Preservatives  
Prion diseases  
Radical scavengers  
Respiratory system, disease  
Sunburn  
Sunscreens  
Thickening agents  
Thrombolytics  
    (preparation of compns. containing pyridinium derivs. for  
    **cosmetic** and therapeutic applications)  
IT Alcohols, biological studies  
Hormones, animal, biological studies  
Polyoxyalkylenes, biological studies  
Polysiloxanes, biological studies  
Retinoids  
Vitamins  
    (preparation of compns. containing pyridinium derivs. for  
    **cosmetic** and therapeutic applications)  
IT Collagens, biological studies  
    (prevention of loss of; preparation of compns. containing pyridinium  
    derivs. for **cosmetic** and therapeutic applications)  
IT Skin, disease  
    (senile xerosis; preparation of compns. containing pyridinium derivs.)

for cosmetic and therapeutic applications)

IT Drug delivery systems  
(tablets; preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

IT 98-92-0, Nicotinamide 2631-72-3, 2,4-Dichlorophenacyl bromide  
(in pyridinium compds. preparation; preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

IT 70-11-1, Phenacyl bromide 840-78-8  
(in pyridinium hydrazine derivs. preparation; preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

IT 333797-24-3P 333797-26-5P 333797-27-6P 333797-28-7P  
333797-30-1P 333797-32-3P 333797-33-4P 333797-35-6P  
333797-37-8P 333797-90-3P 333797-91-4P 333797-92-5P  
333797-95-8P 333797-96-9P 333797-97-0P 333797-98-1P  
333797-99-2P 333798-00-8P 333798-01-9P 333798-02-0P  
333798-04-2P 333798-05-3P 333798-06-4P 357625-22-0P  
357625-23-1P 357625-24-2P 357625-28-6P 357625-29-7P  
357625-30-0P 357625-31-1P 357625-32-2P 357625-33-3P  
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460051-64-3P 460051-67-6P 460051-68-7P 460740-97-0P  
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515864-09-2P 515864-10-5P 515864-11-6P 515864-12-7P  
515864-13-8P 515864-14-9P 515864-15-0P 515864-16-1P  
515864-17-2P 515864-18-3P 515864-19-4P 515864-20-7P  
515864-21-8P 515864-22-9P  
(preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

IT 16844-14-7 104932-96-9 333797-38-9 333797-39-0  
(preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

IT 63-42-3, Lactose 557-04-0 9003-39-8, Polyvinylpyrrolidone  
9005-25-8, Starch, biological studies 14807-96-6, Talc,  
biological studies 25322-68-3, PEG  
(preparation of compns. containing pyridinium derivs. for cosmetic and therapeutic applications)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L49 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:238134 HCAPLUS

DOCUMENT NUMBER: 138:234488

TITLE: Method for the determination of multiple  
disease markers in tissues

PATENT ASSIGNEE(S): Werner, M., Germany

SOURCE: Ger. Offen., 10 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German



FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10143757	A1	20030327	DE 2001-10143757	2001 0906

PRIORITY APPLN. INFO.:

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DE 2001-10143757

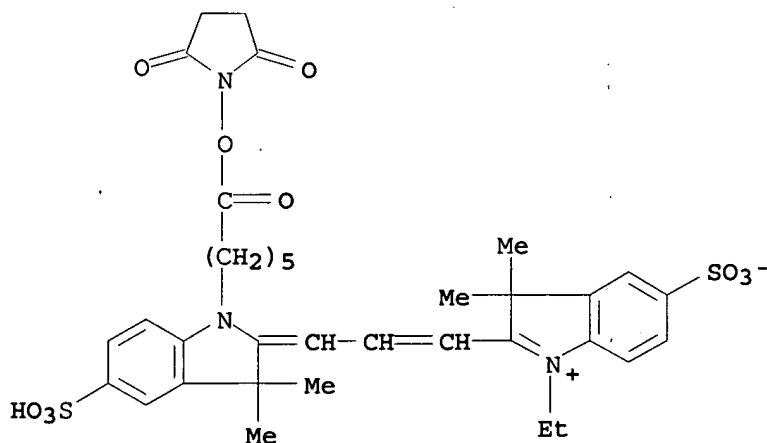
2001  
0906

AB The invention concerns a method for the determination of at least two disease markers in a tissue by using labeled antibodies, lectins or nucleic acids. Labels are fluorescent **dyes** or enzymes. Disease-causing microorganisms, antigens, epitopes. proteins, chromosomes, genes, oncogenes, tumor suppressants, nucleic acids are determined

IT 146368-16-3, Cy3  
(Cy3; method for determination of multiple disease markers in tissues)

RN 146368-16-3 HCAPLUS

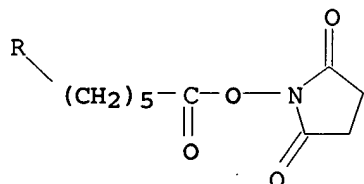
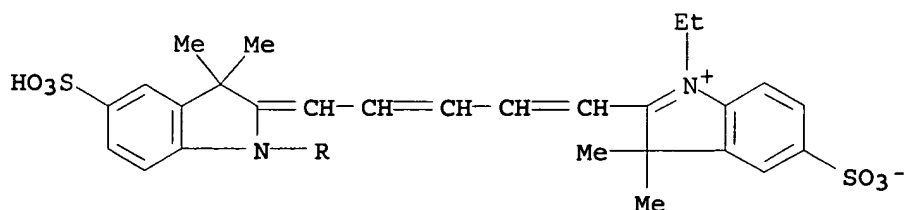
CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT 146368-14-1  
(Cy5; method for determination of multiple disease markers in tissues)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



- IC ICM C12Q001-02  
 CC 9-16 (Biochemical Methods)  
 IT **Keratins**  
     (10; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (13; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (14; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (17; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (18; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (19; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (20; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (6; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (7; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (8; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (AE1/AE3; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (CK5/8; method for determination of multiple disease markers in tissues)  
 IT **Keratins**  
     (LUS; method for determination of multiple disease markers in tissues)  
 IT Animal tissue  
   Aspergillus  
   B19 virus  
   Chlamydia pneumoniae  
   Chromosome  
   Cytomegalovirus  
   Enterovirus  
   Escherichia coli  
   Fluorescent dyes  
   Helicobacter pylori

Human  
 Human herpesvirus 1  
 Human herpesvirus 2  
 Human herpesvirus 4  
 Human immunodeficiency virus  
 Human papillomavirus  
 Human papillomavirus 11  
 Human papillomavirus 16  
 Human papillomavirus 18  
 Human papillomavirus 31  
 Human papillomavirus 33  
 Immunoassay  
 Microorganism  
 Mycobacterium bovis  
 Nucleic acid hybridization  
 Pneumocystis carinii  
 Toxoplasma gondii  
 Tumor markers  
 Ulex europaeus

(method for determination of multiple disease markers in tissues)

IT 146368-16-3, Cy3

(Cy3; method for determination of multiple disease markers in tissues)

IT 146368-14-1

(Cy5; method for determination of multiple disease markers in tissues)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L49 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:6168 HCAPLUS

DOCUMENT NUMBER: 138:67816

TITLE: Dual resonance energy transfer nucleic acid  
 probes and their use in cancer diagnosis

INVENTOR(S): Bao, Gang; Tsourkas, Andrew; Xu, Yangqing

PATENT ASSIGNEE(S): Georgia Tech Research Corporation, USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000933	A1	20030103	WO 2002-US20094	2002 0625

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
 MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE,  
 SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN,  
 YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,  
 BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,  
 NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
 ML, MR, NE, SN, TD, TG

CA 2451614 AA 20030103 CA 2002-2451614 2002  
0625

EP 1409735 A1 20040421 EP 2002-746673 2002  
0625

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
JP 2004532649 T2 20041028 JP 2003-507314 2002  
0625

PRIORITY APPLN. INFO.: US 2001-300672P P 2001  
0625

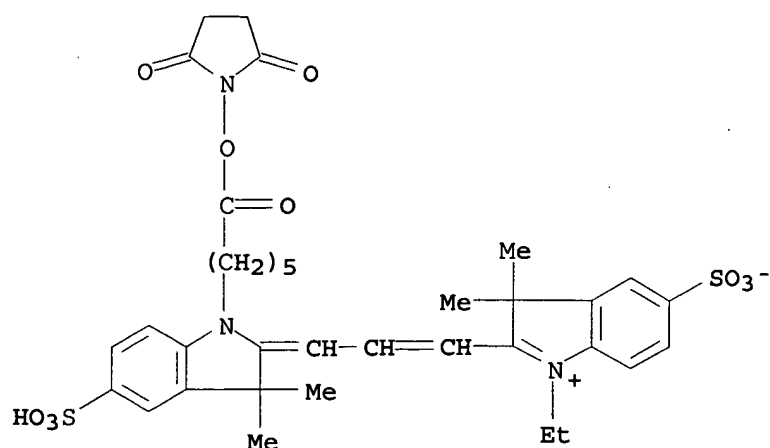
US 2001-303258P P 2001  
0703

WO 2002-US20094 W 2002  
0625

AB Dual nucleic acid probes with resonance energy transfer moieties are provided. In particular, fluorescent or luminescent resonance energy transfer (FRET or LRET, resp.) moieties are provided on **hairpin** stem-loop mol. beacon probes that hybridize sufficiently near each other on a subject nucleic acid, e.g. mRNA, to generate an observable interaction. The invention also provides lanthanide chelate LRET moieties on linear and stem-loop probes that hybridize sufficiently near each other on a subject nucleic acid to generate an observable interaction. The invention thereby provides detectable signals for rapid, specific and sensitive hybridization determination in vivo. The probes are used in methods of detection of nucleic acid target hybridization for the identification and quantification of tissue and cell-specific gene expression levels, including response to external stimuli, such as drug candidates, and genetic variations associated with disease, such as cancer. Thus, the method was demonstrated using two probes capable of FRET or LRET when bound next to each other on the human glyceraldehyde-3-phosphate dehydrogenase gene. Similar probes which may be used for detection of K-ras mutations or levels of survivin gene expression are presented.

IT 146368-16-3D, Cy3, conjugates with stem-loop-forming oligonucleotide probes  
(Cy3; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

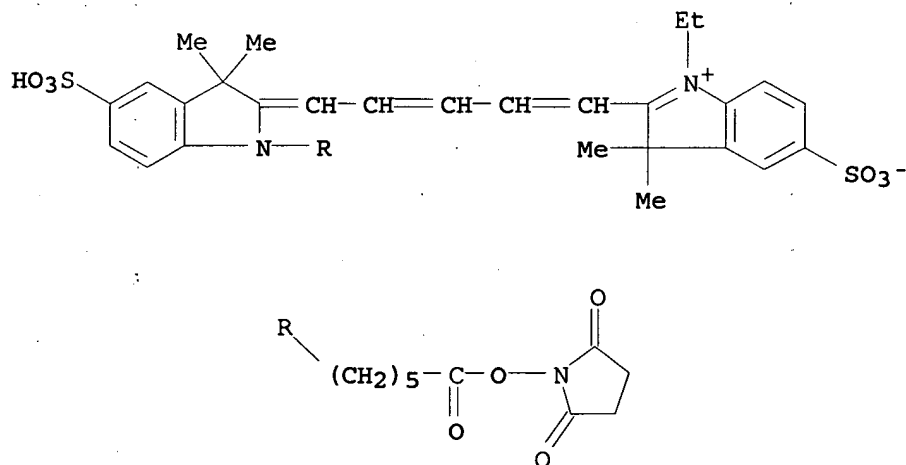
RN 146368-16-3 HCAPLUS  
CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT 146368-14-1D, Cy5, conjugates with stem-loop-forming oligonucleotide probes  
(Cy5; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM C12Q001-68

ICS C07H021-02; C07H021-04

CC 3-1 (Biochemical Genetics)

IT Luminescent substances

(dyes, conjugates with stem-loop-forming oligonucleotide probes; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

IT Dyes

(luminescent, conjugates with stem-loop-forming oligonucleotide probes; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

IT 146368-16-3D, Cy3, conjugates with stem-loop-forming oligonucleotide probes  
(Cy3; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

IT 146368-14-1D, Cy5, conjugates with stem-loop-forming oligonucleotide probes  
(Cy5; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

IT 102250-30-6D, lanthanide chelates 166320-71-4D, lanthanide chelates 200862-70-0D, BHHCT, lanthanide chelates 275820-89-8, W1024 303030-95-7, Quantum dye 479637-45-1D, lanthanide chelates  
(oligonucleotide probes containing; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:889451 HCAPLUS

DOCUMENT NUMBER: 137:381947

TITLE: Methods and reagents for the rapid and efficient isolation of circulating cancer cells

INVENTOR(S): Terstappen, Leon W. M. M.; Rao, Galla Chandra; O'Hara, Shawn Mark; Liberti, Paul A.; Gross, Steven; Doyle, Gerald

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. 6,365,362.  
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002172987	A1	20021121	US 2002-79939	2002 0219
CA 2432361	AA	19990819	CA 1999-2432361	1999 0212
CA 2432363	AA	19990819	CA 1999-2432363	1999 0212
US 6365362	B1	20020402	US 1999-248388	1999 0212
US 2002009759	A1	20020124	US 2001-904472	2001 0713
US 6645731	B2	20031111		

CA 2438112 AA 20030807 CA 2002-2438112 2002  
0219

WO 2003065042 A1 20030807 WO 2002-US5233 <--  
2002  
0219

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE,  
SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK,  
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1360496 A1 20031112 EP 2002-806645 2002  
0219

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
JP 2005516217 T2 20050602 JP 2003-564585 2002  
0219

BR 2002007290 A 20050607 BR 2002-7290 2002  
0219

US 2003129676 A1 20030710 US 2002-269579 <--  
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JP 2005010177 A2 20050113 JP 2004-265687 <--  
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0913

PRIORITY APPLN. INFO.: US 1998-74535P P 1998  
0212

US 1998-110202P P 1998  
1130

US 1998-110279P P 1998  
1130

US 1999-248388 A2 1999  
0212

US 2001-268859P P 2001  
0216

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US 2001-269270P      P
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US 2001-269271P      P
                        2001
                        0220

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CA 1999-2320418      A3
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                        0212

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JP 2000-531745      A3
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US 2001-904472      A1
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WO 2002-US5233      W
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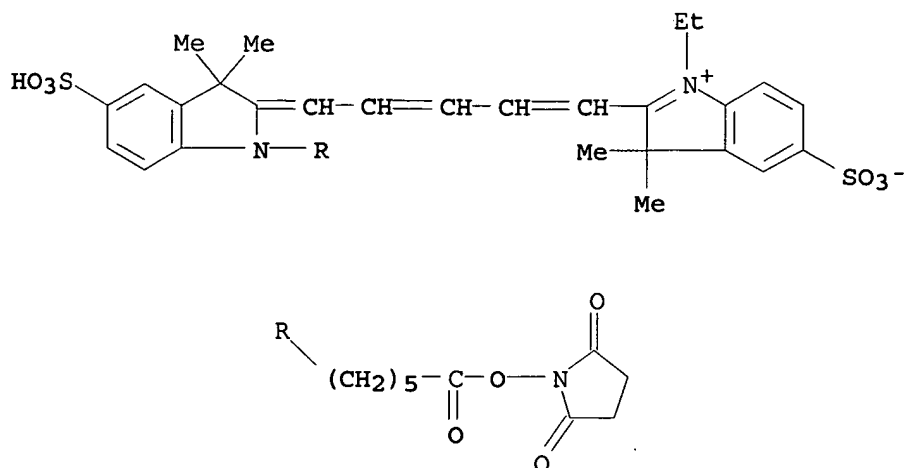
AB Methods and compns. are provided for detecting circulating tumor cells and assessing said cells for alterations in tumor-diathesis associated mols. Blood samples of women with stage III or metastatic breast cancer were reacted with anti-epithelial cell adhesion mol. monoclonal antibodies coupled to magnetic nanoparticles for immunomagnetic separation of epithelial cells from the blood. The separated cells were further reacted with phycoerythrin conjugated with anti-cytokeratin monoclonal antibody to cytokeratin, peridinin chlorophyll protein-labeled anti-CD45, and cyanine 5-labeled anti-HER-2. The samples were analyzed by FACS. The number of circulating tumor cells was determined and shown to be useful in assessing tumor progression.

IT 146368-14-1D, Cy 5, conjugates with antibody to HER-2  
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





- IC ICM G01N033-574  
 INCL 435007230  
 CC 9-10 (Biochemical Methods)  
 Section cross-reference(s): 14  
 IT **Keratins**  
 (10, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (13, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (18, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (4, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (5, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (6, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (8, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Dyes**  
 (cell-specific; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT **Keratins**  
 (reagents binding to intracellular; methods and reagents for rapid and efficient isolation of circulating cancer cells)  
 IT 146368-14-1D, Cy 5, conjugates with antibody to HER-2  
 (methods and reagents for rapid and efficient isolation of circulating cancer cells)

L49 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:832793 HCAPLUS  
 DOCUMENT NUMBER: 137:337886  
 TITLE: Preparation of pyrazolyl- and isoxazolylpyridinium halides for treatment of

aging-related and diabetic vascular complications  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 180 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085897	A1	20021031	WO 2002-IB1137	2002 0402
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WO 2002085897	C1	20021128		
WO 2002085897	C2	20040401		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2439593	AA	20021031	CA 2002-2439593	2002 0402
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EP 1373263	A1	20040102	EP 2002-722547	2002 0402
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EP 1373263	B1	20041027		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002008561	A	20040330	BR 2002-8561	2002 0402
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CN 1498217	A	20040519	CN 2002-806980	2002 0402
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JP 2004529154	T2	20040924	JP 2002-583424	2002 0402
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AT 280766	E	20041115	AT 2002-722547	2002 0402
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PT 1373263	T	20050331	PT 2002-722547	2002

0402

ES 2231685 T3 20050516 ES 2002-2722547

2002  
0402

US 2003045554 A1 20030306 US 2002-116135

2002  
0405

ZA 2003006370 A 20040607 ZA 2003-6370

2003  
0815

HK 1061234 A1 20050527 HK 2004-104243

2004  
0611

PRIORITY APPLN. INFO.:

US 2001-281380P

P

2001  
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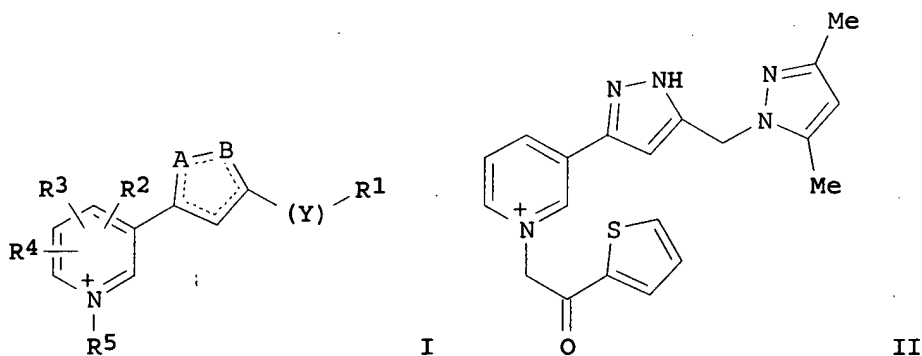
WO 2002-IB1137

W

2002  
0402

OTHER SOURCE(S):  
GI

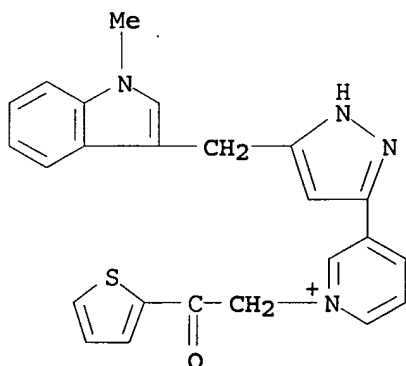
MARPAT 137:337886



AB Title compds. I-X- [wherein R1 = H or (un)substituted (heterocyclo)alkyl, alkenyl, (bi)cycloalkyl, (bi)cycloalkenyl, (hetero)aryl, or (hetero)aralkyl; Y = alkyl-Z or alkyl; Z = S, O, or N; A and B = independently NH, NR6, S, O, or C; R2, R3, and R4 = independently H, halo, NO2, N:CR8R9, NR8R9, OR8, perhaloalkyl, CONR7R9, COR8, CO2R8, OCOR8, NHCOR8, or (un)substituted (heterocyclo)alkyl, alkenyl, (bi)cycloalkyl, (bi)cycloalkenyl, (hetero)aryl, or (hetero)aralkyl; R5 = null or (un)substituted (cyclo)alkyl, (cyclo)alkenyl, bicycloalkyl, CH2COR7, CH2CONHR8, CH2CONR8R9, or CH2CO2R7; R6 and R7 = independently (un)substituted alkyl, perhalo(cyclo)alkyl, (alkyl)cycloalkyl, (hetero)aryl, (hetero)aralkyl, alkyl(hetero)aryl, aralkoxyalkyl, acyl, benzoyl, alkoxyalkyl, thioalkyl, thioaryl, etc.; R8 and R9 = independently (un)substituted (perhalo)alkyl, (perhalo)cycloalkyl,

alkoxy(cyclo)alkyl, alkoxyaryl, heterocycloalkyl, etc.; and pharmaceutically or cosmetically acceptable salts thereof] were prepared I•X- act by triple action of an AGE (advanced glycation endproducts) breaker, AGE inhibitor, and free radical scavenger. For example, 3-acetylpyridine was added to Et 3,5-dimethylpyrazolylacetate to give the butane-1,3-dione, which was then cyclized with hydrazine in MeOH to afford 3-[3-(3,5-dimethylpyrazol-1-ylmethyl)pyrazol-5-yl]pyridine. Quaternization with  $\alpha$ -bromo-2-acetylthiophene in IPA produced the pyridinium bromide (II•Br-). Representative compds. of the invention exhibited AGE breaking activity between 42.37% and 100% at concns. of 10 mM, inhibited AGE activity, between 55.22% and 82.5% at concns. of 5 mM, and displayed free radical scavenging activity on ABTS between 29.40% and 99.71% at concns. of 100  $\mu$ M. Thus, I•X- are useful for therapeutic and cosmetic applications, particularly in the management of aging-related and diabetic vascular complications (no data). Pharmaceuticals and cosmetic compns. comprising I are also disclosed.

- IT 473882-35-8P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(N-methylindole-3-yl)methyl]pyrazol-5-yl]pyridinium chloride (AGE inhibitor; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors by formation of diketo compds., cyclization, and quaternization)
- RN 473882-35-8 HCAPLUS
- CN Pyridinium, 3-[5-[(1-methyl-1H-indol-3-yl)methyl]-1H-pyrazol-3-yl]-1-[2-oxo-2-(2-thienyl)ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

- IC ICM C07D409-00
- CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 1, 62
- IT **Cosmetics**  
(creams; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
- IT **Cosmetics**  
(emollients; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)

- IT **Hair**  
Nail (anatomical)  
(improving appearance of; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
- IT **Skin, disease**  
(pigmentation; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
- IT **AIDS (disease)**  
Acne  
Aging, animal  
Alzheimer's disease  
Anti-AIDS agents  
Anti-Alzheimer's agents  
Anti-inflammatory agents  
Antitumor agents  
Atherosclerosis  
**Cosmetics**  
Dentifrices  
Dialysis  
Eye, disease  
Growth disorders, animal  
Heart, disease  
Human  
Inflammation  
Intestine, disease  
Kidney, disease  
Liver, disease  
Mouthwashes  
Neoplasm  
Oxidative stress, biological  
Radical scavengers  
Respiratory system, disease  
Sunscreens  
(preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
- IT **Cosmetics**  
(wrinkle-preventing; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
- IT 473881-86-6P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide  
473881-87-7P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium bromide 473881-88-8P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[(5-phenylmethyl)isoxazol-3-yl]pyridinium bromide 473881-89-9P 473881-90-2P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(phenylmethyl)-1-(2-pyridyl)pyrazol-5-yl]pyridinium bromide 473881-91-3P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]-1-(2-pyridyl)pyrazol-5-yl]pyridinium bromide  
473881-92-4P, 1-[2-(Cyclopropylamino)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide  
473881-93-5P, 1-[2-(4-Nitro-2-thienyl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide  
473881-94-6P, 1-(2-Cyclopropylamino-2-oxoethyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473881-95-7P,  
3,5-Bis[1-[2-(thien-2-yl)-2-oxoethyl]pyridinium-3-yl]pyrazole dibromide 473881-96-8P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-

phenyl-3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride  
473881-97-9P, 1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473881-98-0P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-phenyl-3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium chloride 473881-99-1P,  
1-(2-Phenyl-2-oxoethyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium bromide 473882-00-7P, 1-(2-Cyclopropylamino-2-oxoethyl)-3-[1-phenyl-3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride  
473882-01-8P 473882-02-9P, 1-(2-Phenyl-2-oxoethyl)-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium chloride  
473882-03-0P, 1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium chloride  
473882-04-1P, 1-(2-Phenyl-2-oxoethyl)-3-[1-phenyl-3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473882-05-2P,  
1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-(2-cyclohexylethyl)pyrazol-5-yl]pyridinium chloride 473882-06-3P,  
1-(2-Cyclopropylamino-2-oxoethyl)-3-[3-(2-cyclohexylethyl)pyrazol-5-yl]pyridinium chloride 473882-07-4P, 1-(2-Phenyl-2-oxoethyl)-3-[3-(2-cyclohexylethyl)pyrazol-5-yl]pyridinium chloride  
473882-08-5P, 1-(2-Cyclopropylamino-2-oxoethyl)-3-[1-cyclohexyl-3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473882-09-6P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(phenoxymethyl)pyrazol-5-yl]pyridinium chloride 473882-10-9P, 1-[2-(1-Adamantylamino)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride  
473882-11-0P, 1-(2-Phenyl-2-oxoethyl)-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]-1-phenylpyrazol-5-yl]pyridinium bromide 473882-12-1P,  
1-[2-(4-Nitro-2-thienyl)-2-oxoethyl]-3-[1-cyclohexyl-3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide  
473882-13-2P, 1-[2-(4-Nitro-2-thienyl)-2-oxoethyl]-3-[3-(2-cyclohexylethyl)pyrazol-5-yl]pyridinium bromide 473882-14-3P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-phenyl-3-(phenoxymethyl)pyrazol-5-yl]pyridinium chloride 473882-15-4P, 1-[2-(4-Nitro-2-thienyl)-2-oxoethyl]-3-[1-phenyl-3-(phenylmethyl)pyrazol-5-yl]pyridinium  
bromide 473882-16-5P, 1-(2-Cyclopropylamino-2-oxoethyl)-3-[3-(phenoxymethyl)pyrazol-5-yl]pyridinium chloride 473882-17-6P,  
1-(2-Cyclopropylamino-2-oxoethyl)-3-[1-cyclohexyl-3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazole-5-yl]pyridinium chloride  
473882-18-7P, 1-[2-(5-Chloro-2-thienyl)-2-oxoethyl]-3-[3-(phenoxymethyl)pyrazol-5-yl]pyridinium bromide 473882-19-8P,  
1-(2-Phenyl-2-oxoethyl)-3-[1-phenyl-3-(phenoxymethyl)pyrazol-5-yl]pyridinium chloride 473882-20-1P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-cyclohexyl-3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium chloride 473882-21-2P,  
1-(2-Cyclopropylamino-2-oxoethyl)-3-[1-phenyl-3-(phenoxymethyl)pyrazol-5-yl]pyridinium bromide 473882-22-3P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-phenyl-3-(2-cyclohexylethyl)pyrazol-5-yl]pyridinium bromide 473882-23-4P,  
1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-cyclohexyl-3-(phenoxymethyl)pyrazol-5-yl]pyridinium chloride 473882-24-5P,  
3-[3-(Phenylmethyl)pyrazol-5-yl]pyridine hydrochloride  
473882-25-6P, 3-[3-(Phenoxymethyl)pyrazol-5-yl]pyridine hydrochloride 473882-26-7P, 3-[3-(2-Cyclohexylethyl)pyrazol-5-yl]pyridine 473882-27-8P, 1-(2-(2-Naphthyl)-2-oxoethyl)-3-[3-(phenoxymethyl)pyrazol-5-yl]pyridinium bromide 473882-28-9P,  
1-(Phenylmethyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473882-29-0P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(1-naphthyl)pyrazol-5-yl]pyridinium chloride 473882-30-3P,  
1-(2-Phenyl-2-oxoethyl)-3-[3-[(thienyl-2-yl)methyl]pyrazol-5-yl]pyridinium chloride 473882-31-4P, 1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-(2-phenylethyl)pyrazol-5-yl]pyridinium chloride

473882-32-5P, 1-(2-(5-Methyl-2-thienyl)-2-oxoethyl)-3-[3-(3-phenoxypropyl)pyrazol-5-yl]pyridinium chloride 473882-33-6P, 1-(Isopropyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium bromide 473882-34-7P, 1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-[(phenylthio)methyl]pyrazol-5-yl]pyridinium chloride 473882-35-8P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(N-methylindole-3-yl)methyl]pyrazol-5-yl]pyridinium chloride 473882-36-9P, 1-[2-(2-Naphthyl)-2-oxoethyl]-3-[3-methylpyrazol-5-yl]pyridinium bromide 473882-37-0P, 1-[2-(1,4-Benzodioxan-6-ylamino)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473882-38-1P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-phenylpyrazol-5-yl]-5-bromopyridinium chloride 473882-39-2P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-phenylpyrazol-5-yl]quinolinium chloride 473882-40-5P, 3-[3-Phenylpyrazol-5-yl]quinoline (AGE inhibitor; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors by formation of diketo compds., cyclization, and quaternization)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:830270 HCAPLUS

DOCUMENT NUMBER: 137:339044

TITLE: Phthalocyanine dye compositions

INVENTOR(S): Banning, Jeffrey H.; Hu, Nan-Xing; Mayo, James D.; Duff, James M.; Gaynor, Roger E.; Duque, Rosa M.; Ro, Nam S.

PATENT ASSIGNEE(S): Xerox Corporation, USA

SOURCE: U.S., 30 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6472523	B1	20021029	US 2002-72241	2002 0208
JP 2003277639	A2	20031002	JP 2003-27856	2003 0205
EP 1335000	A2	20030813	EP 2003-2850	2003 0207
EP 1335000	A3	20031105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: US 2002-72241 A 2002  
0208

OTHER SOURCE(S): MARPAT 137:339044

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

AB Disclosed are pentadecylphenoxy-substituted phthalocyanine dyes (I; M = atom or group of atoms capable of bonding to the central cavity of the phthalocyanine mol., whereby axial ligands optionally can be attached to M). I are especially suitable for phase-change (hot-melt) printing inks, showing good solubility and performance properties. In an example, 3-pentadecylphenol was condensed with 4-nitrophthalonitrile to give 4-(3-pentadecylphenoxy)phthalonitrile, which with CuCl<sub>2</sub> gave blue I (M = Cu),  $\lambda_{\text{max}}$  683 nm.

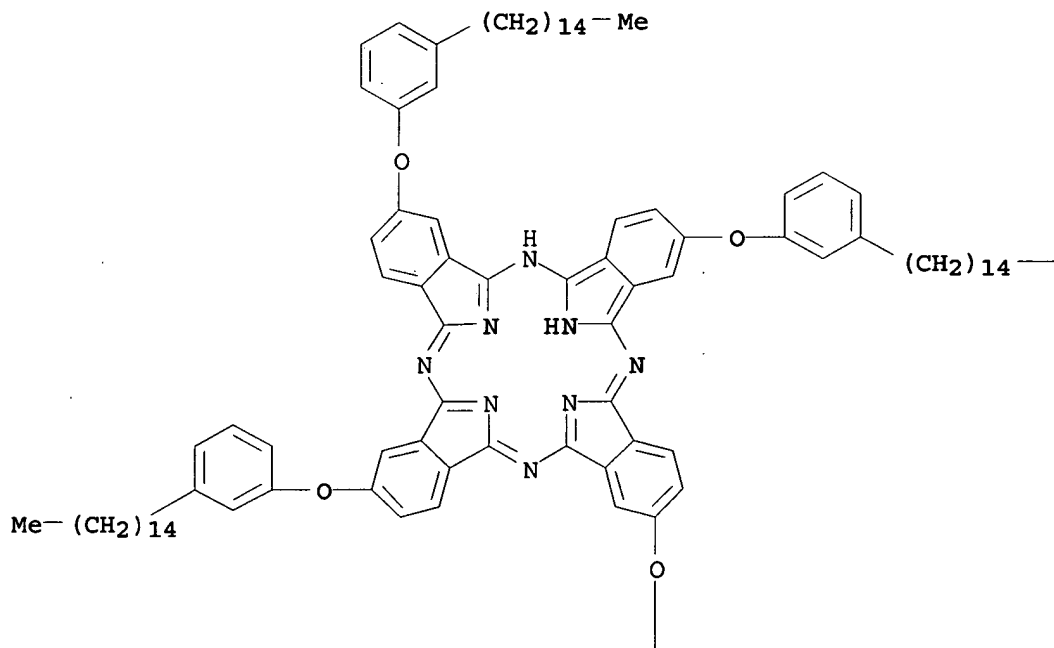
IT 473702-43-1

(dye; pentadecylphenoxy-substituted phthalocyanine dyes for printing ink)

RN 473702-43-1 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis(3-pentadecylphenoxy)-, calcium salt (1:1) (9CI) (CA INDEX NAME)

PAGE 1-A

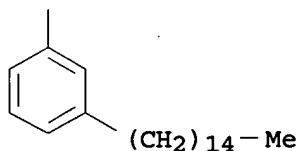




PAGE 1-B

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PAGE 2-A



● Ca

IC ICM C07D487-22  
ICS C07B047-10  
INCL 540128000  
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 25, 28, 42, 78  
ST phthalocyanine dye prodn hot melt printing ink  
IT Inks  
(jet-printing, hot-melt; pentadecylphenoxy-substituted phthalocyanine dyes for)  
IT Dyes  
(pentadecylphenoxy-substituted phthalocyanine dyes for printing ink)  
IT 501-24-6, Cardolite NC 510  
(Cardolite NC 510, starting material; production of pentadecylphenoxy-substituted phthalocyanine dyes for printing ink)  
IT 177992-44-8P 473702-49-7P 473702-50-0P 473702-51-1P  
473702-52-2P  
(blue dye; pentadecylphenoxy-substituted phthalocyanine dyes for printing ink)  
IT 473702-38-4 473702-39-5 473702-40-8 473702-41-9  
473702-42-0 473702-43-1 473702-44-2 473702-45-3  
473702-46-4 473702-47-5 473702-48-6 473702-53-3  
473702-54-4 473702-55-5 473702-56-6 473702-57-7  
473702-58-8 473702-59-9 473702-60-2 473702-61-3  
473702-62-4 473702-63-5 473702-65-7 473702-66-8  
473702-67-9  
(dye; pentadecylphenoxy-substituted phthalocyanine dyes for printing ink)  
IT 473702-64-6P  
(intermediate; production of pentadecylphenoxy-substituted

phthalocyanine **dyes** for printing ink)  
 IT 631-61-8, Ammonium acetate 4465-79-6, Cupric acetate dihydrate  
 5970-45-6, Zinc acetate dihydrate 6018-89-9, Nickel diacetate  
 tetrahydrate 6046-93-1, Cupric acetate monohydrate 7447-39-4,  
 Cupric chloride, reactions 7646-79-9, Cobalt dichloride,  
 reactions 31643-49-9, 4-Nitrophthalonitrile  
 (starting material; production of pentadecylphenoxy-substituted  
 phthalocyanine **dyes** for printing ink)  
 REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L49 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:714224 HCAPLUS  
 DOCUMENT NUMBER: 137:243915  
 TITLE: Assays for sequence-specific depurinating and  
 depyrimidinating enzymes using molecular  
 beacon substrates  
 INVENTOR(S): Ayguen, Hueseyin; Wojczewski, Sylvia  
 PATENT ASSIGNEE(S): Viscum AG, Germany  
 SOURCE: Eur. Pat. Appl., 32 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1241267	A2	20020918	EP 2002-5362	2002 0314

EP 1241267 A3 20040102

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

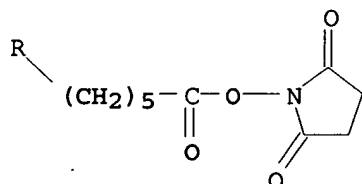
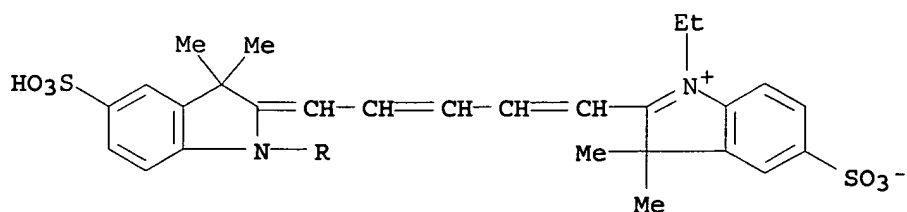
PRIORITY APPLN. INFO.: EP 2001-106265 A  
 2001  
 0314

AB A method of assaying for enzymes that remove purine or pyrimidine  
 bases from nucleic acids in a sequence-specific manner without  
 strand scission is described. The method uses a mol. beacon as a  
 substrate. A stem-loop nucleic acid structure brings together a  
 FRET pair of reporter **dyes**: a fluorophore and a  
 quencher. As the bases are removed from the stem by the enzyme,  
 the stem loses stability and the fluorophore is able to fluoresce.  
 Use of a fluorescein/DABCYL pair to assay the rRNA N-glycosidase  
 activity of viscumin is demonstrated.

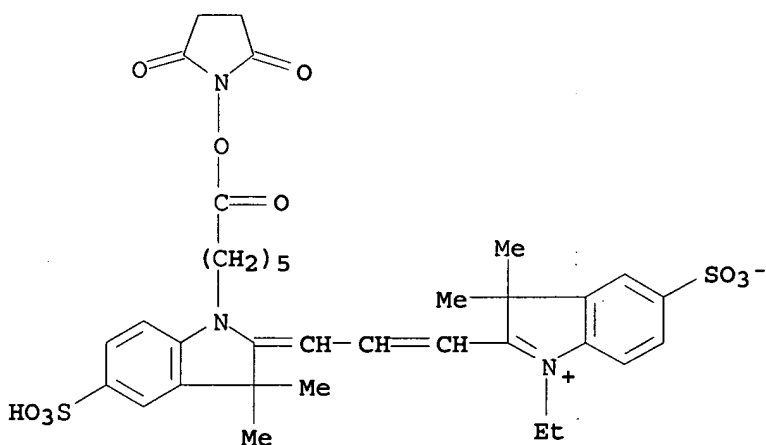
IT 146368-14-1D, Cy5, oligonucleotide conjugates  
 146368-16-3D, Cy3, oligonucleotide conjugates  
 (reporter group; assays for sequence-specific depurinating and  
 depyrimidinating enzymes using mol. beacon substrates)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-  
 oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-  
 pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA  
 INDEX NAME)



RN 146368-16-3 HCAPLUS  
 CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM C12Q001-68  
 CC 7-1 (Enzymes)  
 Section cross-reference(s): 3  
 IT Conformation  
 (hairpin loop, in assay substrate for nucleic acid N-glycosidases; assays for sequence-specific depurinating and depyrimidinating enzymes using mol. beacon substrates)  
 IT 81-88-9D, oligonucleotide conjugates 88-68-6D, Anthranilamide, oligonucleotide conjugates 91-64-5D, Coumarin, oligonucleotide conjugates 129-00-0D, Pyrene, butyrate derivs., oligonucleotide conjugates 129-00-0D, Pyrene, oligonucleotide conjugates 989-38-8D, Rhodamine 6G, oligonucleotide conjugates 2321-07-5D, Fluorescein, oligonucleotide conjugates 3546-21-2D, Ethidium, oligonucleotide conjugates 3604-79-3D, 3-Nitrotyrosine, oligonucleotide conjugates 6268-49-1D, DABCYL, oligonucleotide

conjugates 50402-56-7D, EDANS, oligonucleotide conjugates 75929-56-5D, TAMRA, oligonucleotide conjugates 82354-19-6D, Texas Red, oligonucleotide conjugates 146368-14-1D, Cy5, oligonucleotide conjugates 146368-16-3D, Cy3, oligonucleotide conjugates (reporter group; assays for sequence-specific depurinating and depyrimidinizing enzymes using mol. beacon substrates)

L49 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:660104 HCAPLUS

DOCUMENT NUMBER: 138:184634

TITLE: Redefining the skin's **pigmentary** system with a novel tyrosinase assay

AUTHOR(S): Han, Rong; Baden, Howard P.; Brissette, Janice L.; Weiner, Lorin

CORPORATE SOURCE: Cutaneous Biology Research Center, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA, USA

SOURCE: Pigment Cell Research (2002), 15(4), 290-297  
CODEN: PCREEA; ISSN: 0893-5785

PUBLISHER: Blackwell Munksgaard

DOCUMENT TYPE: Journal

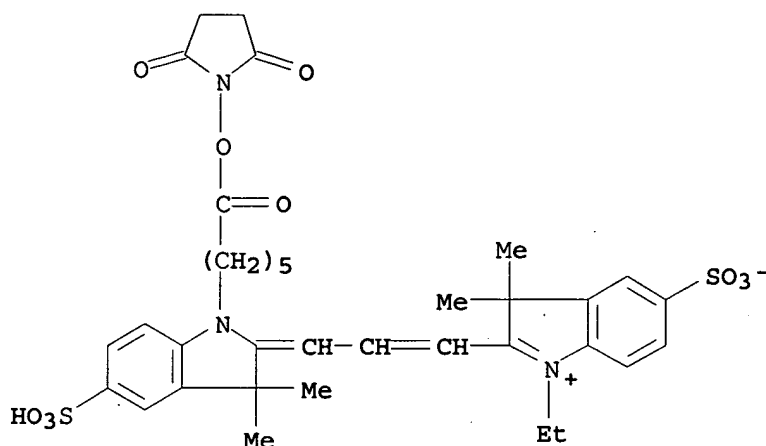
LANGUAGE: English

AB In mammalian skin, melanin is produced by melanocytes and transferred to epithelial cells, with the epithelial cells thought to receive **pigment** only and not generate it. Melanin formation requires the enzyme tyrosinase, which catalyzes multiple reactions in the melanin biosynthetic pathway. Here, we reassess cutaneous melanogenesis using tyramide-based tyrosinase assay (TTA), a simple test for tyrosinase activity in situ. In the TTA procedure, tyrosinase reacts with biotinyl tyramide, causing the substrate to deposit near the enzyme. These biotinylated deposits are then visualized with streptavidin conjugated to a fluorescent dye. In the skin and eye, TTA was highly specific for tyrosinase and served as a sensitive indicator of **pigment** cell distribution and status. In clin. skin samples, the assay detected **pigment** cell defects, such as melanocytic nevi and vitiligo, providing confirmation of medical diagnoses. In murine skin, TTA identified a new tyrosinase-pos. cell type - the medullary cells of the hair-providing the first example of cutaneous epithelial cells with a melanogenic activity. Presumably, the epithelial tyrosinase originates in melanocytes and is acquired by medullary cells during **pigment** transfer. As tyrosinase by itself can generate **pigment** from tyrosine, it is likely that medullary cells produce melanin de novo. Thus, we propose that melanocytes convert medullary cells into **pigment** cells by transfer of the melanogenic apparatus, an unusual mechanism of differentiation that expands the skin's **pigmentary** system.

IT 146368-16-3D, Cy3, conjugates with streptavidin (Cy3; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



CC 13-6 (Mammalian Biochemistry)  
Section cross-reference(s): 7, 9

IT **Hair**  
(follicle, medullary cell, melanogenesis; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

IT **Hair**  
(mouse, tyrosinase histochem.; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

IT **146368-16-3D**, Cy3, conjugates with streptavidin  
(Cy3; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:594968 HCAPLUS

DOCUMENT NUMBER: 137:151788

TITLE: Homo-doubly labeled compositions for the detection of enzyme activity in biological samples

INVENTOR(S): Packard, Beverly S.; Komoriya, Akira

PATENT ASSIGNEE(S): Oncoimmunin, Inc., USA

SOURCE: PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002061038	A2	20020808	WO 2001-US49781	2001

1221

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WO 2002061038 C2 20021128

WO 2002061038 A3 20030313

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
 KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
 MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,  
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,  
 BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,  
 NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
 ML, MR, NE, SN, TD, TG

US 2003207264 A1 20031106 US 2000-747287

2000

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US 6893868 B2 20050517

CA 2432973 AA 20020808 CA 2001-2432973

2001

1221

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EP 1356084 A2 20031029 EP 2001-998079

2001

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2000-747287

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US 1997-802981

A2

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US 1999-394019

A2

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WO 2000-US24882

A2

2000

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WO 2001-US49781

W

2001

1221

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AB The present invention provides for novel reagents whose  
 fluorescence or absorption spectra change upon cleavage or a  
 change in conformation of a backbone. Fluorescence or absorption  
 spectra of these indicators change in the presence of active  
 proteases, nucleases, glycosidases, and the like. The reagents  
 comprise a backbone (e.g. nucleic acid, polypeptide, etc.) joining  
 two chromophores (e.g. fluorophores) of the same species whereby  
 the chromophores form an H-dimer resulting in quenching of the  
 fluorescence of the fluorophores or a change in absorption spectra  
 of the chromophores. When the backbone is cleaved or changes

conformation, the chromophores are separated, no longer forming an H-type dimer, and are de-quenched thereby providing a detectable signal. The use of a single chromophore rather than an "acceptor-donor" fluorescence resonance energy transfer system offers synthesis and performance advantages.

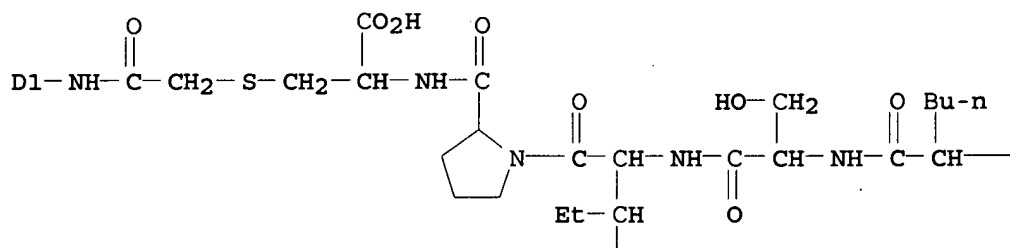
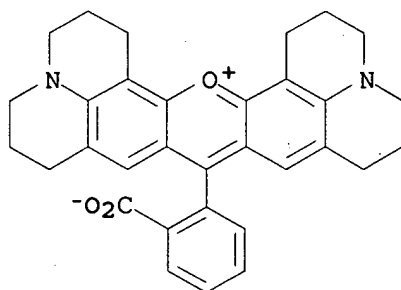
IT 212268-88-7

(fluorogenic protease indicator; homo-doubly labeled compns.  
for detection of enzyme activity in biol. samples)

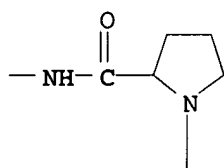
RN 212268-88-7 HCAPLUS

CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L- $\alpha$ -aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

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PAGE 1-B

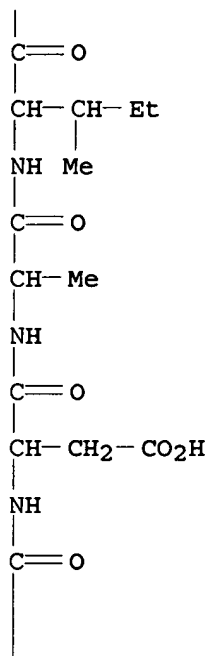


PAGE 2-A

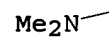




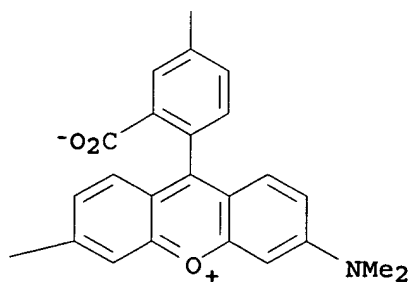
PAGE 2-B



PAGE 3-A

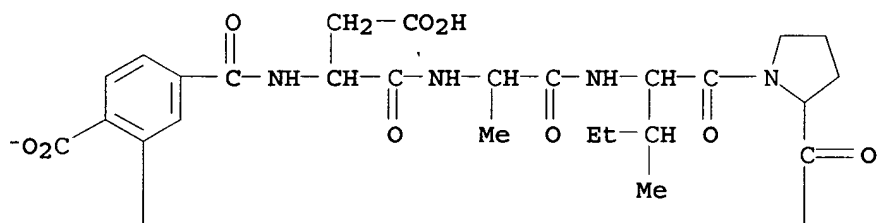


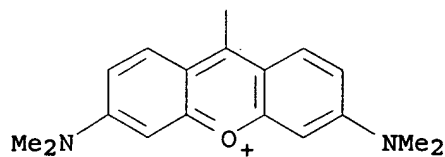
PAGE 3-B



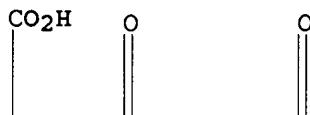
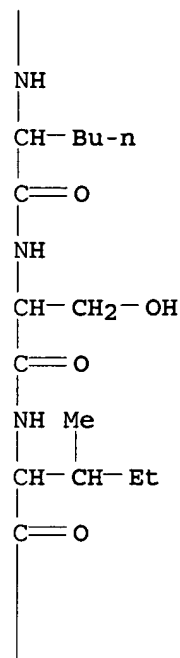
IT 212268-91-2 330443-38-4  
 (homo-doubly labeled compns. for detection of enzyme activity)

	in biol. samples)
RN	212268-91-2 HCAPLUS
CN	L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylum-9-yl]-4-carboxybenzoyl]-L- $\alpha$ -aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

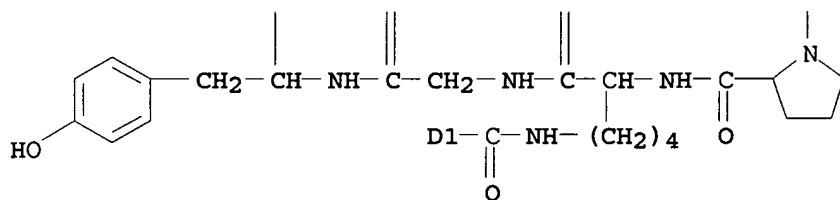




PAGE 2-A



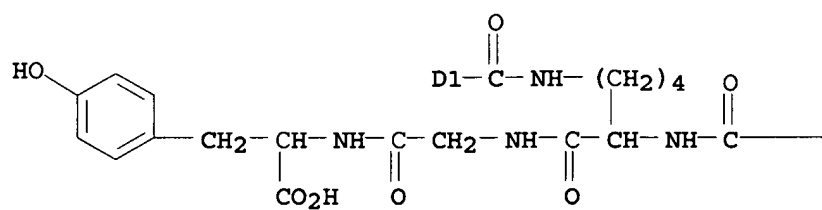
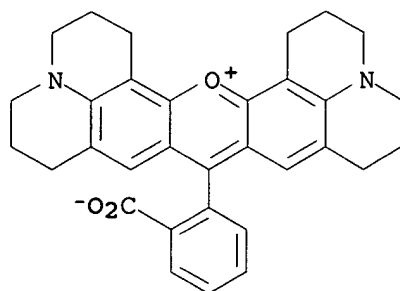
PAGE 3-A



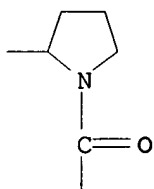
RN 330443-38-4 HCAPLUS

CN L-Tyrosine, N2-[3-[3,6-bis(dimethylamino)xanthylum-9-yl]-4-carboxybenzoyl]-L-lysyl-L- $\alpha$ -aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

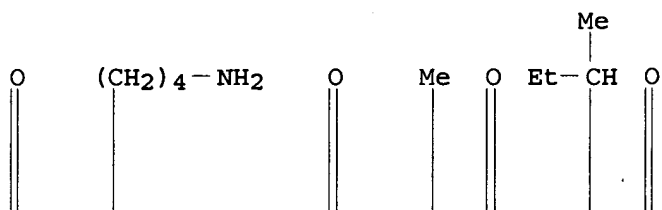
PAGE 1-A



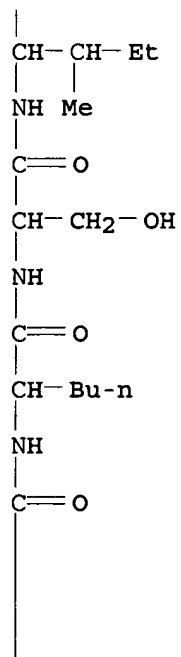
PAGE 1-B



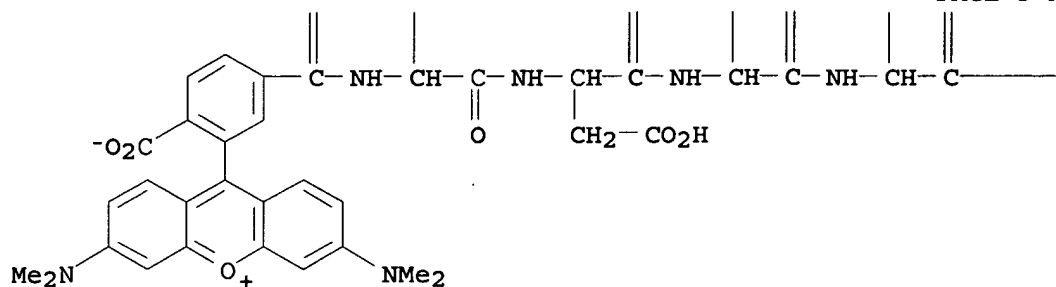
PAGE 2-A



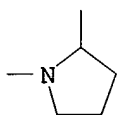
PAGE 2-B



PAGE 3-A



PAGE 3-B



```

IC      ICM      C12N
CC      7-1 (Enzymes)
IT      Conformation
        (hairpin loop; homo-doubly labeled compns. for
        detection of enzyme activity in biol. samples)
IT      Absorption spectra
        Absorption spectroscopy
        Acetyl group
        Animal
        Animal cell
        Animal tissue
        Animal tissue culture
        Apoptosis
        Blood analysis
        Chromophores
        Colorimetric indicators
        Confocal laser scanning microscopy
        Conformational transition
        Cyanine dyes
        Embryo, animal
        Fluorescence excitation
        Fluorescence microscopy
        Fluorescence quenching
        Fluorescent indicators
        Fluorescent substances
        Fluorometry
        High throughput screening
        Linking agents
        Lymph
        Saliva
        Tert-butyl group
        Urine analysis
        (homo-doubly labeled compns. for detection of enzyme activity
        in biol. samples)
IT      212268-88-7
        (fluorogenic protease indicator; homo-doubly labeled compns.
        for detection of enzyme activity in biol. samples)

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IT 203116-52-3 212207-37-9 212268-91-2 212268-95-6  
 330152-87-9 330443-38-4  
 (homo-doubly labeled compns. for detection of enzyme activity  
 in biol. samples)

L49 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:172235 HCAPLUS  
 DOCUMENT NUMBER: 136:213182  
 TITLE: Methods employing fluorescence quenching by  
 metal surfaces  
 INVENTOR(S): Dubertret, Benoit; Calame, Michel; Libchaber,  
 Albert  
 PATENT ASSIGNEE(S): The Rockefeller University, USA  
 SOURCE: PCT Int. Appl., 62 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018951	A2	20020307	WO 2001-US41941	2001 0829

WO 2002018951 A3 20030403  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB,  
 GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,  
 MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2001093232 A5 20020313 AU 2001-93232  
 2001  
0829

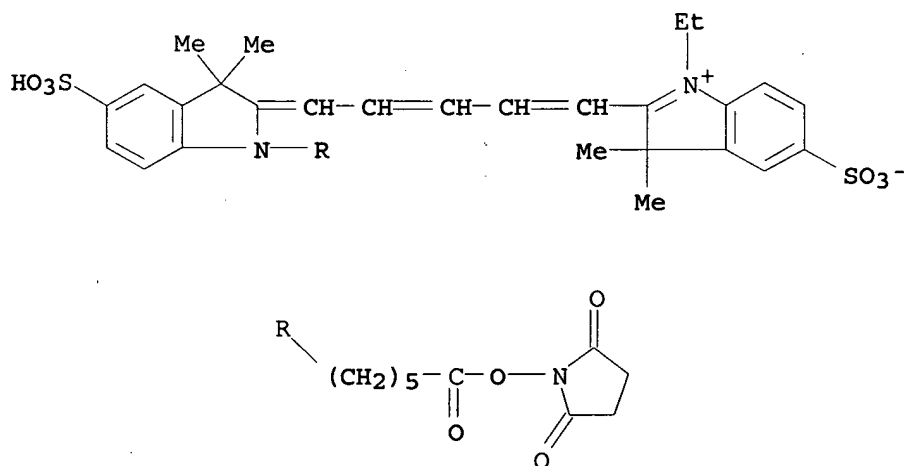
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004002089	A1	20040101	US 2003-374686	2003 0226

PRIORITY APPLN. INFO.: US 2000-228728P P  
 2000  
0829  
 US 2001-280350P P  
 2001  
0330  
 WO 2001-US41941 W  
 2001  
0829

AB The invention is broadly related to methods for sensitively  
 detecting proximity changes in systems that utilize an interacting

fluorophore and quencher. In such methods, a metal surface is used as the quencher. The metal surface may be a particle or film, such as nanoparticles or a coating, resp. Such systems provide an increase in sensitivity over previously-described quenchers, offering a signal-to-noise ratio of up to several orders of magnitude. Examples of such systems in which proximity changes are usefully detected include conformational changes in biomols. resulting from their interaction with their binding partners or ligands. Such biomols. may be, for example, nucleic acids, proteins, peptides, polysaccharides, or other polymeric, naturally-occurring or synthetic mols. These include, by way of non-limiting example, mol. beacons, which detect particular polynucleotide sequences; antibody-antigen interactions, and conformational changes in proteins upon binding to a ligand or substrate. A hairpin loop ssDNA was covalently linked to gold nanoparticles and to different fluorophores and the construct was used in single mismatch detection.

IT 146368-14-1, Cy5  
 (methods employing fluorescence quenching by metal surfaces)  
 RN 146368-14-1 HCAPLUS  
 CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM G01N033-542  
 ICS G01N033-58  
 CC 9-5 (Biochemical Methods)  
 Section cross-reference(s): 3, 73  
 IT Conformation  
 (hairpin loop; methods employing fluorescence quenching by metal surfaces)  
 IT Fluorescence quenching  
 Fluorescent dyes  
 Fluorometry  
 Molecular association  
 Nucleic acid hybridization  
 Proximity effect  
 Quantum dot devices  
 (methods employing fluorescence quenching by metal surfaces)



IT 989-38-8D, Rhodamine 6G, succinimidyl ester 2321-07-5D,  
 Fluorescein, succinimidyl ester 146368-14-1, Cy5  
 216972-99-5  
 (methods employing fluorescence quenching by metal surfaces)

L49 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:654637 HCAPLUS

DOCUMENT NUMBER: 135:215749

TITLE: Keratin fiber dye  
 compositions containing indolizine cationic  
 derivatives as coupling agents

INVENTOR(S): Breton, Philippe; Segala, Fabienne; Lagrange,  
 Alain

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1129690	A2	20010905	EP 2001-400430	2001 0219
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EP 1129690	A3	20011128		
EP 1129690	B1	20050105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2805460	A1	20010831	FR 2000-2419	2000 0225
<--				
AT 286376	E	20050115	AT 2001-400430	2001 0219
<--				
ES 2236150	T3	20050716	ES 2001-1400430	2001 0219
<--				
CA 2338258	AA	20010825	CA 2001-2338258	2001 0226
<--				
JP 2001270813	A2	20011002	JP 2001-51270	2001 0226
<--				
US 2001044974	A1	20011129	US 2001-791822	2001 0226
<--				
US 2003028975	A9	20030213		
US 6579326	B2	20030617		
PRIORITY APPLN. INFO.:			FR 2000-2419	A 2000

0225

&lt;--

OTHER SOURCE(S): MARPAT 135:215749

AB The title oxidative hair dye compns. are disclosed. Thus, 7-methyl-2-phenyl-3-(2-pyridin-2-yl-ethyl)-indolizine was refluxed with di-Me sulfate in Et acetate for 2 h to obtain 1-methyl-2-[2-(7-methyl-2-phenyl-indolizin-3-yl)-ethyl]-pyridinium (I). A hair dye composition contained I 3x10<sup>-3</sup>, paratoluylenediamine 3x10<sup>-3</sup> mole, water and excipients q.s. 100 g. Equal amount of the composition is mixed with 20 volume hydrogen peroxide and applied on the hair for 30 min.

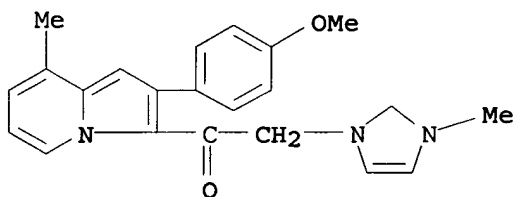
The hair is then rinsed with water, washed with shampoo and dried to obtain a golden blond color.

IT 358359-14-5 358359-15-6 358359-16-7  
358359-17-8 358359-18-9 358359-19-0  
358359-20-3 358359-21-4 358359-22-5  
358359-23-6 358359-24-7 358359-25-8  
358359-26-9 358359-27-0 358359-28-1  
358359-29-2

(keratin fiber dye compns. containing indolizine cationic derivs. as coupling agents)

RN 358359-14-5 HCAPLUS

CN 1H-Imidazolium, 1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indoliziny]]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

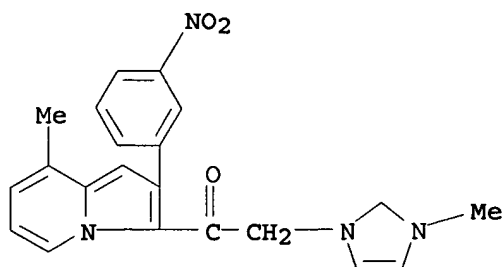


● Cl<sup>-</sup>

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 358359-15-6 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-[2-[8-methyl-2-(3-nitrophenyl)-3-indoliziny]]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)

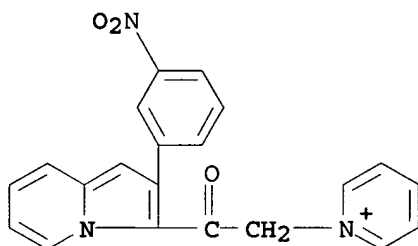


● Cl<sup>-</sup>

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 358359-16-7 HCAPLUS

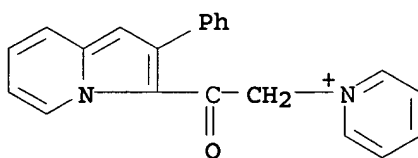
CN Pyridinium, 1-[2-[2-(3-nitrophenyl)-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 358359-17-8 HCAPLUS

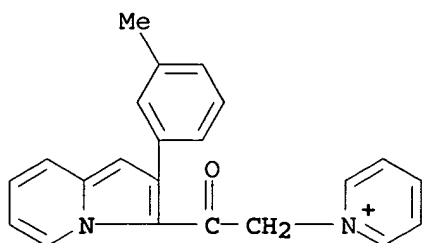
CN Pyridinium, 1-[2-oxo-2-(2-phenyl-3-indoliziny)ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 358359-18-9 HCAPLUS

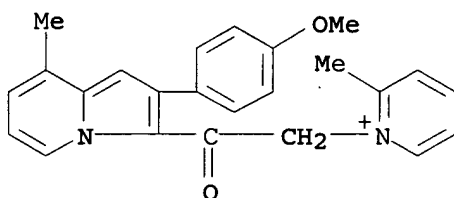
CN Pyridinium, 1-[2-[2-(3-methylphenyl)-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 358359-19-0 HCAPLUS

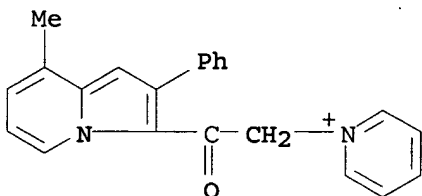
CN Pyridinium, 1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indoliziny]]-2-oxoethyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 358359-20-3 HCAPLUS

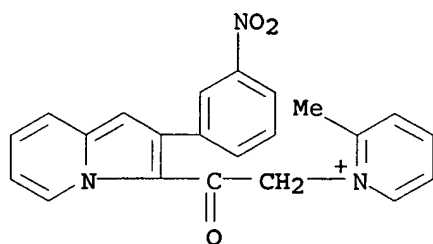
CN Pyridinium, 1-[2-(8-methyl-2-phenyl-3-indoliziny)]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

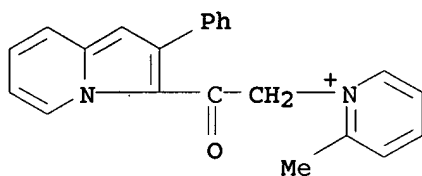
RN 358359-21-4 HCAPLUS

CN Pyridinium, 2-methyl-1-[2-[2-(3-nitrophenyl)-3-indoliziny]]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



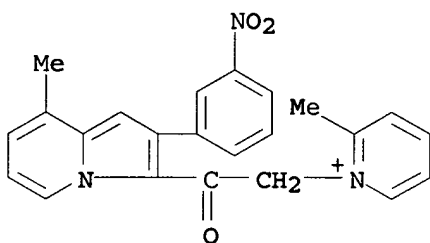
● Cl<sup>-</sup>

RN 358359-22-5 HCAPLUS  
 CN Pyridinium, 2-methyl-1-[2-oxo-2-(2-phenyl-3-indoliziny]ethyl]-, chloride (9CI) (CA INDEX NAME)



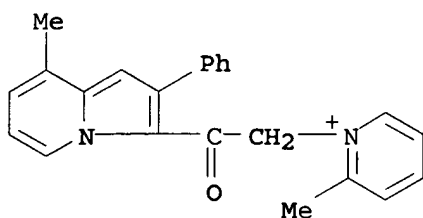
● Cl<sup>-</sup>

RN 358359-23-6 HCAPLUS  
 CN Pyridinium, 2-methyl-1-[2-[8-methyl-2-(3-nitrophenyl)-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



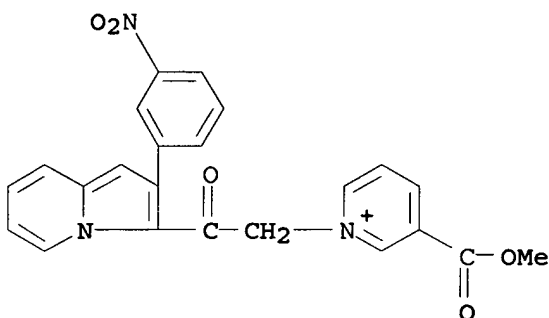
● Cl<sup>-</sup>

RN 358359-24-7 HCAPLUS  
 CN Pyridinium, 2-methyl-1-[2-(8-methyl-2-phenyl-3-indoliziny)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



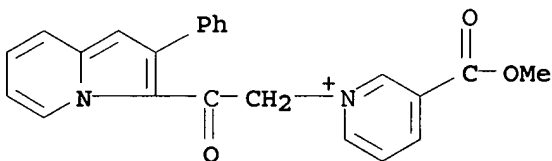
● Cl<sup>-</sup>

RN 358359-25-8 HCAPLUS  
 CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[2-(3-nitrophenyl)-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



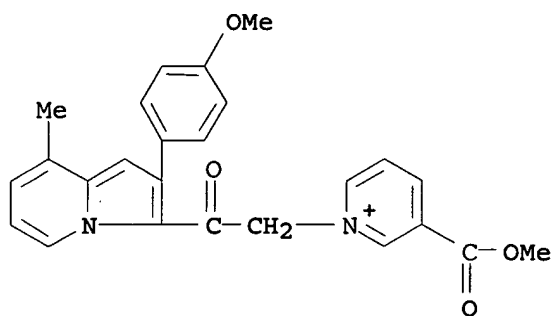
● Cl<sup>-</sup>

RN 358359-26-9 HCAPLUS  
 CN Pyridinium, 3-(methoxycarbonyl)-1-[2-oxo-2-(2-phenyl-3-indoliziny)ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

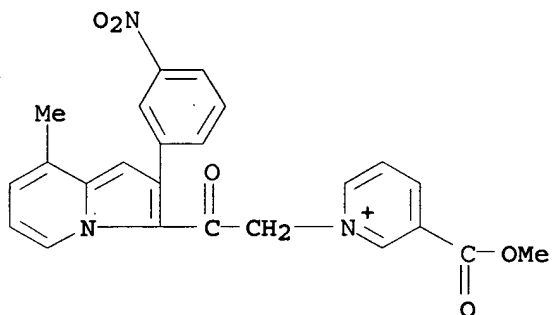
RN 358359-27-0 HCAPLUS  
 CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 358359-28-1 HCAPLUS

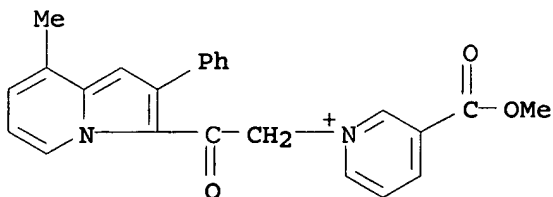
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[8-methyl-2-(3-nitrophenyl)-3-indoliziny]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

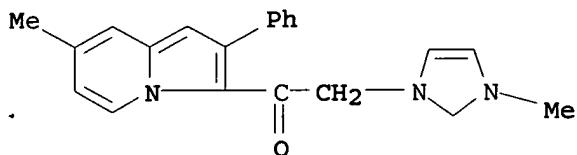
RN 358359-29-2 HCAPLUS

CN Pyridinium, 3-(methoxycarbonyl)-1-[2-(8-methyl-2-phenyl-3-indoliziny)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

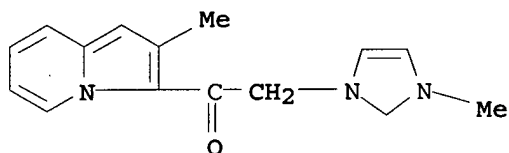
IT 358359-09-8P 358359-10-1P  
 (keratin fiber dye compns. containing  
 indolizine cationic derivs. as coupling agents)  
 RN 358359-09-8 HCAPLUS  
 CN 1H-Imidazolium, 1-methyl-3-[2-(7-methyl-2-phenyl-3-indoliziny)-2-  
 oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 358359-10-1 HCAPLUS  
 CN 1H-Imidazolium, 1-methyl-3-[2-(2-methyl-3-indoliziny)-2-oxoethyl]-  
 , chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC A61K007-13; C07D471-04  
 CC 62-3 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 27  
 ST oxidative hair dye indolizine deriv coupler  
 IT Bromates  
 (alkali metal salts; keratin fiber dye  
 compns. containing indolizine cationic derivs. as coupling agents)  
 IT Hair preparations  
 (dyes, oxidative; keratin fiber dye  
 compns. containing indolizine cationic derivs. as coupling agents)  
 IT Coupling agents  
 Oxidizing agents  
 (keratin fiber dye compns. containing  
 indolizine cationic derivs. as coupling agents)  
 IT Enzymes, biological studies  
 (keratin fiber dye compns. containing  
 indolizine cationic derivs. as coupling agents)  
 IT Salts, biological studies  
 (of peroxy acids; keratin fiber dye compns.  
 containing indolizine cationic derivs. as coupling agents)



- IT 92-65-9 93-05-0, N,N-Diethyl p-phenylenediamine 95-55-6, 2  
aminophenol 95-55-6D, derivs. 95-70-5 99-98-9, N,N-Dimethyl  
p-phenylenediamine 101-54-2 106-50-3, 1,4-Benzenediamine,  
biological studies 106-50-3D, 1,4-Benzenediamine, derivs.  
108-45-2D, 1,3-Benzenediamine, derivs. 123-30-8, p-Aminophenol  
123-30-8D, derivs. 124-43-6 148-71-0, 4-Amino-N,N-diethyl-3-  
methyl aniline 399-95-1, 4-Amino 3-fluorophenol 399-96-2, 4  
amino 2 fluorophenol 537-65-5 591-27-5D, derivs. 615-66-7,  
2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl  
p-phenylenediamine 2359-52-6 2359-53-7 2835-96-3, 4-amino 2  
methylphenol 2835-98-5, 2 amino 5-methylphenol 2835-99-6, 4  
amino 3 methylphenol 5306-96-7, 2,3-Dimethyl-p-phenylenediamine  
5862-80-6 6393-01-7, 2,5-Dimethyl p-phenylenediamine  
7218-02-2, 2,6-Dimethyl p-phenylenediamine 7575-35-1,  
N,N-Bis( $\beta$ -hydroxyethyl) p-phenylenediamine 7722-84-1,  
Hydrogen peroxide, biological studies 9002-10-2, Tyrosinase  
9003-99-0, Peroxidase 9055-15-6, Oxidoreductase 14791-78-7,  
2-Fluoro p-phenylenediamine 15583-11-6 15583-12-7  
17672-22-9, 2 amino 6-methylphenol 35682-64-5 35682-65-6  
35691-87-3 35691-91-9 47139-07-1 47581-03-3 52200-90-5,  
4-amino 2 methoxyphenol 63969-43-7 73793-80-3, 2-Hydroxymethyl  
p-phenylenediamine 79352-72-0, 4-amino 2 aminomethylphenol  
80467-77-2, N-(2-Hydroxypropyl) p-phenylenediamine 80498-15-3,  
Laccase 93841-24-8, 2- $\beta$ -Hydroxyethyl p-phenylenediamine  
97902-52-8, 2-Isopropyl p-phenylenediamine 104333-09-7, 4-Amino  
2-hydroxymethylphenol 105293-89-8, N,N-Dipropyl  
p-phenylenediamine 105607-68-9 110952-46-0, 4-Amino  
2-(2-hydroxyethylaminomethyl)phenol 128729-30-6 128729-31-7  
129697-50-3, 5-acetamido 2 aminophenol 130582-53-5 135855-34-4  
135855-35-5 168202-61-7, 4 amino 3 hydroxymethylphenol  
189261-56-1 221110-58-3 358359-11-2 358359-13-4  
358359-14-5 358359-15-6 358359-16-7  
358359-17-8 358359-18-9 358359-19-0  
358359-20-3 358359-21-4 358359-22-5  
358359-23-6 358359-24-7 358359-25-8  
358359-26-9 358359-27-0 358359-28-1  
358359-29-2 358359-30-5 358359-31-6  
(keratin fiber dye compns. containing  
indolizine cationic derivs. as coupling agents)  
IT 358359-09-8P 358359-10-1P  
(keratin fiber dye compns. containing  
indolizine cationic derivs. as coupling agents)  
IT 77-78-1, Dimethylsulfate 79-04-9, Chloroacetic acid chloride  
616-47-7, n Methylimidazole 768-18-3, 2 methylindolizine  
1337-81-1, Vinyl pyridine 26557-56-2, 7-Methyl-2-phenyl-  
indolizine  
(keratin fiber dye compns. containing  
indolizine cationic derivs. as coupling agents)  
IT 358359-08-7P  
(keratin fiber dye compns. containing  
indolizine cationic derivs. as coupling agents)

L49 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:55831 HCAPLUS

DOCUMENT NUMBER: 134:287704

TITLE: Design and Synthesis of Porphyrin-Based  
Optoelectronic Gates

AUTHOR(S): Ambroise, Arounaguiry; Wagner, Richard W.;  
Rao, Poliseti Dharma; Riggs, Jennifer A.;  
Hascoat, Philippe; Diers, James R.; Seth,

CORPORATE SOURCE: Jyoti; Lammi, Robin K.; Bocian, David F.;  
Holten, Dewey; Lindsey, Jonathan S.  
Department of Chemistry, University of  
California, Riverside, CA, 92521-0403, USA  
SOURCE: Chemistry of Materials (2001), 13(3),  
1023-1034  
CODEN: CMATEX; ISSN: 0897-4756  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

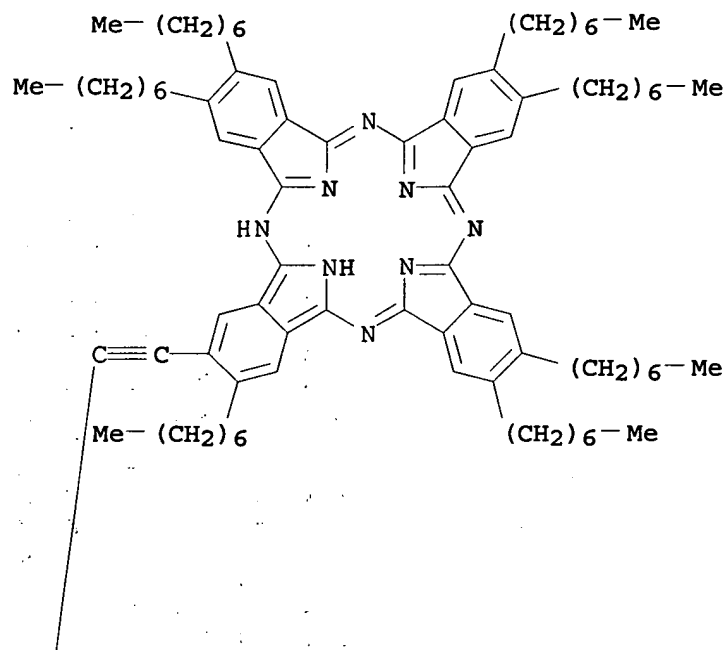
AB Two porphyrin-based optoelectronic gates and several prototypical redox-switching components of gates have been synthesized for studies in mol. photonics. Linear and T-shaped mol. optoelectronic gates contain a boron-dipyrrin (BDPY) dye as the input unit, a Zn porphyrin as the transmission unit, a free base (Fb) porphyrin as the output unit, and a magnesium (Mg) porphyrin as the redox-switching unit. The linear gate and T gate were synthesized using a mol. building block approach. In the linear gate synthesis, a BDPY-Zn porphyrin dyad was coupled with a Fb porphyrin-Mg porphyrin dimer. The synthesis of the T gate utilized a Zn porphyrin bearing four different meso substituents: mesityl, 4-iodophenyl, 4-[2-(trimethylsilyl)ethynyl]phenyl, and 4-[2-(triisopropyl)ethynyl]phenyl. Attachment of the three different groups to the Zn porphyrin was accomplished using successive Pd-mediated coupling reactions in the following sequence: Fb porphyrin (output unit), BDPY dye (input unit), and Mg porphyrin (redox-switching unit). Both the linear gate and T gate syntheses introduce the Mg porphyrin at the final step to minimize demetalation of the Mg porphyrin. Refinements to various components of these gates were investigated through the preparation of a ferrocene-porphyrin, a ferrocene-phthalocyanine, and a ferrocene-porphyrin-phthalocyanine. A dyad motif for studies of optically based redox switching was prepared that contains a derivative of Ru(bpy)3X2 coupled to a porphyrin. From these and related studies have emerged a number of design considerations for the development of refined optoelectronic gates.

IT 332349-66-3P  
(synthesis and properties of ferrocene-porphyrin dyads for optoelectronic gates)

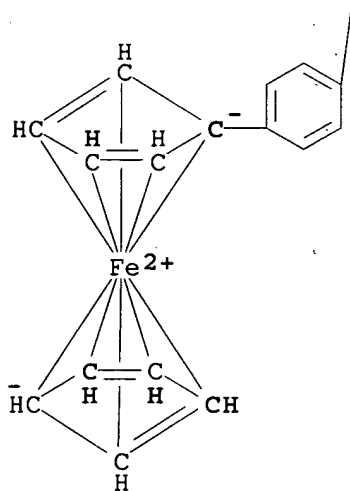
RN 332349-66-3 HCAPLUS

CN Ferrocene, [4-[(3,9,10,16,17,23,24-heptaheptyl-29H,31H-phthalocyanin-2-yl)ethynyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IT 332349-67-4P

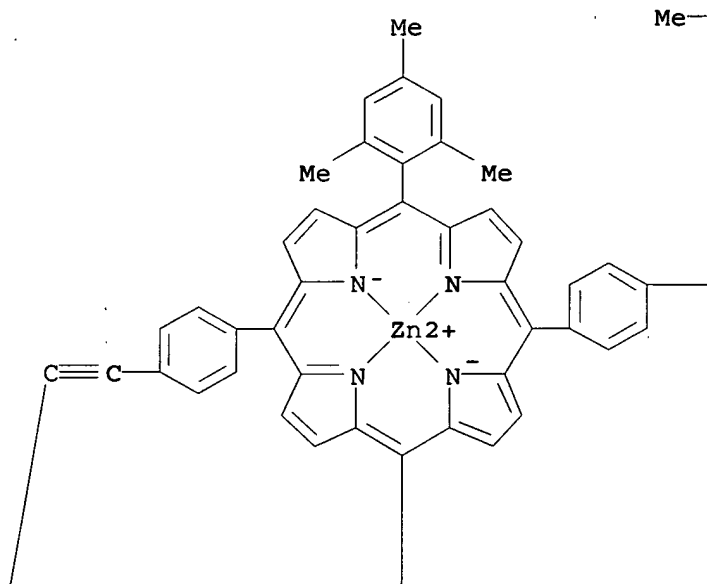
(synthesis and properties of ferrocene-porphyrin-phthalocyanine triad for porphyrin-based optoelectronic gates)

RN 332349-67-4 HCAPLUS

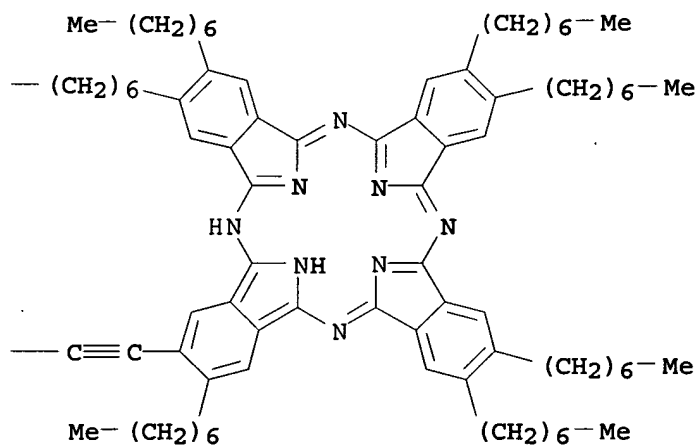
CN Zinc, [[4-[[4-[15-[4-[(3,9,10,16,17,23,24-heptaheptyl-29H,31H-phthalocyanin-2-yl)ethynyl]phenyl]-10,20-bis(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]ethynyl]phenyl]

ferrocenato(2-)]-, (SP-4-2) - (9CI) (CA INDEX NAME)

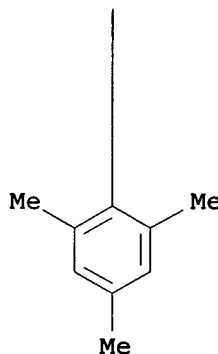
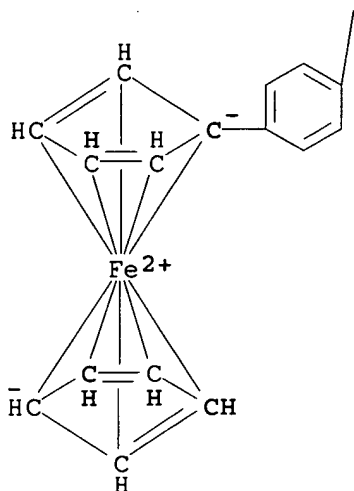
PAGE 1-A



PAGE 1-B



PAGE 2-A



- CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 72, 73, 78
- ST porphyrin based optoelectronic gate design synthesis; magnesium zinc porphyrin boron dipyrin dye optoelectronic gate design; photophysics electrochem porphyrin based optical gate design; ferrocene porphyrin phthalocyanine optoelectronic gate redox switch
- IT 159152-14-4, 5-Mesityldipyrromethane  
(condensation with boron-dipyrin dye and iodobenzaldehyde in synthesis of porphyrin-based optoelectronic gate component)
- IT 15164-44-0, 4-Iodobenzaldehyde  
(condensation with boron-dipyrin dye and mesityldipyrromethane in synthesis of porphyrin-based optoelectronic gate component)
- IT 332349-65-2P 332349-66-3P  
(synthesis and properties of ferrocene-porphyrin dyads for optoelectronic gates)
- IT 332349-67-4P  
(synthesis and properties of ferrocene-porphyrin-phthalocyanine triad for porphyrin-based optoelectronic gates)
- REFERENCE COUNT: 109 THERE ARE 109 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:786466 HCAPLUS  
 DOCUMENT NUMBER: 134:128072  
 TITLE: FRET Fluctuation Spectroscopy: Exploring the Conformational Dynamics of a DNA Hairpin Loop  
 AUTHOR(S): Wallace, Mark Ian; Ying, Liming; Balasubramanian, Shankar; Klenerman, David  
 CORPORATE SOURCE: Department of Chemistry, University of Cambridge, Cambridge, CB2 1EW, UK  
 SOURCE: Journal of Physical Chemistry B (2000), 104(48), 11551-11555

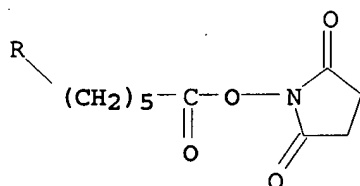
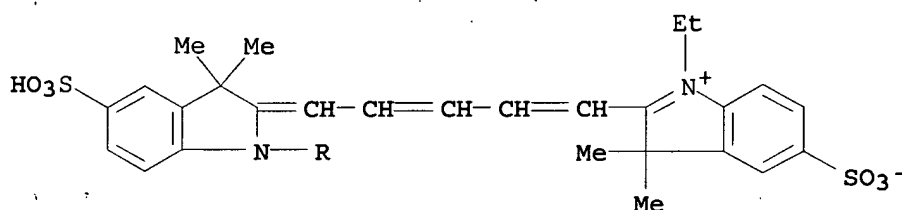
PUBLISHER: CODEN: JPCBFK; ISSN: 1089-5647  
 DOCUMENT TYPE: American Chemical Society  
 LANGUAGE: Journal  
 English

AB The motions of a **dye**-labeled DNA **hairpin** loop (Cy5-5'-GGGTT-(A)30-AACCC-3'-TMR) have been investigated through the fluctuations in proximity ratio from fluorescence resonance energy transfer (FRET). We examine three solution conditions: (1) MilliQ water, (2) Tris-EDTA buffer, and (3) Tris-EDTA buffer plus an excess of DNA complementary to the loop sequence, (T)30. Correlations in proximity ratio show submillisecond dynamics. Static heterogeneity is revealed from the distribution of proximity ratio amplitudes. The observed stretched exponential kinetics are consistent with a model based on the transition between two states over a complex energy landscape.

IT 146368-14-1, Cy5  
 (Cy5; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



CC 9-6 (Biochemical Methods)

ST FRET fluctuation spectroscopy DNA **hairpin** loop conformation

IT Fluorometry  
 Resonance energy  
 Solvent effect

(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT DNA  
 (FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT Conformation  
 (**hairpin** loop; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT 146368-14-1, Cy5

(Cy5; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA hairpin loop)

IT 120718-52-7

(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA hairpin loop)

IT 321924-56-5D, 5'-indodicarbocyanine and 3'-TMR labeled

(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA hairpin loop)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:368704 HCAPLUS

DOCUMENT NUMBER: 133:14300

TITLE: In situ method of analyzing cells by staining with multiple stains and using a spectral data collection device

INVENTOR(S): Garini, Yuval; Mcnamara, George; Soenksen, Dirk G.; Cabib, Dario; Buckwald, Robert A.

PATENT ASSIGNEE(S): Applied Spectral Imaging Ltd., Israel

SOURCE: PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000031534	A1	20000602	WO 1999-US27000	1999 1116

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 767361	A2	19970409	EP 1993-203737	1993 0722
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EP 767361	A3	19970813		
EP 767361	B1	20000301		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
EP 957345	A2	19991117	EP 1999-111903	1993 0722

EP 957345	A3	20000503		
EP 957345	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
EP 957346	A2	19991117	EP 1999-111904	

1993  
0722

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EP 957346 A3 20000503  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE  
 AT 189927 E 20000315 AT 1993-203737

1993  
0722

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ES 2144441 T3 20000616 ES 1993-203737

1993  
0722

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ES 2188065 T3 20030616 ES 1999-111903

1993  
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DE 29624210 U1 20010628 DE 1996-29624210

1996  
1210

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US 6165734 A 20001226 US 1998-196690

1998  
1120

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EP 1131631 A1 20010912 EP 1999-963904

1999  
1116

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,  
 MC, PT, IE, SI, LT, LV, FI, RO  
 JP 2002530676 T2 20020917 JP 2000-584297

1999  
1116

&lt;--

PRIORITY APPLN. INFO.: US 1998-196690 A

1998  
1120

&lt;--

EP 1993-203737 A3

1993  
0722

&lt;--

EP 1999-111903 A

1993  
0722

&lt;--

US 1995-571047 A1

1995  
1212

&lt;--

EP 1996-944834 A

1996  
1210

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US 1998-122704 A2

1998  
0727

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WO 1999-US27000 W



1999

1116

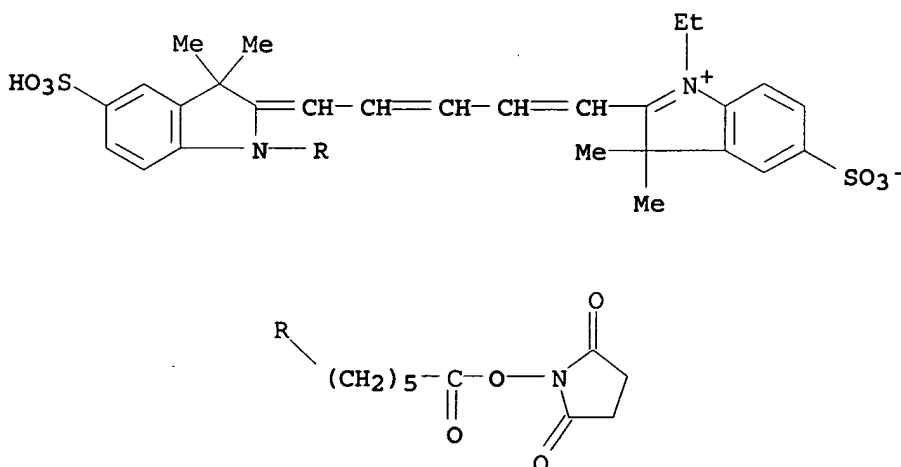
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AB A method of in situ anal. of a biol. sample comprises the steps of (a) staining the biol. sample with N stains of which a first stain is selected from the group consisting of a first immunohistochem. stain, a first histol. stain and a first DNA ploidy stain, and a second stain is selected from the group consisting of a second immunohistochem. stain, a second histol. stain and a second DNA ploidy stain, with provisions that N is an integer greater than three and further that (i) if the first stain is the first immunohistochem. stain then the second stain is either the second histol. stain or the second DNA ploidy stain; (ii) if the first stain is the first histol. stain then the second stain is either the second immunohistochem. stain or the second DNA ploidy stain; whereas (iii) if the first stain is the first DNA ploidy stain then the second stain is either the second immunohistochem. stain or the second histol. stain; and (b) using a spectral data collection device for collecting spectral data from the biol. sample, the spectral data collection device and the N stains are selected so that a spectral component associated with each of the N stains is collectible. Figure (1) shows a block diagram illustrating the main components of an imaging spectrometer. Breast cancer tissue samples were stained with two histol. stains (hematoxylin and eosin), and four immunohistochem. stains (DAB, AEC, Fast Red, and BCIP/NBT) and measured using the Spectracube system.

IT 146368-14-1, Cy5 146368-16-3, Cy3  
(as label; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)

RN 146368-14-1 HCAPLUS

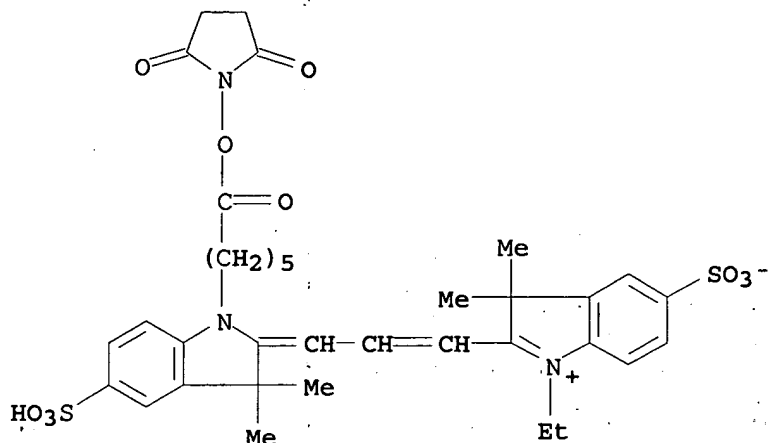
CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA

INDEX NAME)



- IC ICM G01N033-53  
ICS C12Q001-54; C12Q001-28; C12Q001-00; C12Q001-42  
CC 9-4 (Biochemical Methods)  
Section cross-reference(s): 3, 14  
IT **Dyes**  
(Alexa; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)  
IT **Dyes**  
(IR, as label; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)  
IT CA 125 (carbohydrate antigen)  
CA19-9 antigen  
CD14 (antigen)  
CD19 (antigen)  
CD20 (antigen)  
CD22 (antigen)  
CD3 (antigen)  
CD30 (antigen)  
CD34 (antigen)  
CD38 (antigen)  
CD4 (antigen)  
CD45 (antigen)  
CD45RA (antigen)  
CD45RO (antigen)  
CD5 (antigen)  
CD7 (antigen)  
CD8 (antigen)  
Carcinoembryonic antigen  
Epidermal growth factor receptors  
Estrogen receptors  
Fas antigen  
Fibrins  
**Keratins**  
Ki-67 antigen  
P-glycoproteins  
Progesterone receptors  
Proliferating cell nuclear antigen  
Prostate-specific antigen

Ras proteins  
 Transferrin receptors  
 Vimentins  
 neu (receptor)  
 p53 (protein)  
 (antibody to; in situ method of analyzing cells by staining  
 with multiple stains and using a spectral data collection  
 device)

IT Algorithm  
 Animal tissue  
 Biological materials  
 Cell  
 Colorimetry  
 Fluorescent dyes  
 Histochemistry  
 Imaging  
 Interferometry  
 Luminescence  
 Optical dispersion  
 Optical filters  
 Ploidy  
 Spectroscopy  
 Staining, biological  
 Stains, biological  
 (in situ method of analyzing cells by staining with multiple  
 stains and using a spectral data collection device)

IT 53-57-6, NADPH 58-68-4, NADH 60-18-4, L-Tyrosine, biological  
 studies 73-22-3, L-Tryptophan, biological studies 146-14-5,  
 FAD 1461-15-0, Calcein 2321-07-5, Fluorescein 9001-37-0,  
 Glucose oxidase 9001-78-9 9003-99-0, Peroxidase 9014-00-0,  
 Luciferase 9031-11-2,  $\beta$ -Galactosidase 13558-31-1D,  
 derivs. 41085-99-8 53213-83-5, DiOC7(3) 69432-00-4,  
 Calcofluor White 82354-19-6, Texas Red 88235-25-0  
 98285-52-0, Spectrum Orange 102185-03-5, Cy2 138026-71-8,  
 BODIPY 146368-14-1, Cy5 146368-16-3, Cy3  
 148504-34-1, Calcein-AM 159501-37-8, Cyclic GDP-Ribose  
 167095-09-2, MitoTracker Red 169799-14-8, Cy 7 172971-77-6  
 172971-78-7 189767-45-1, Cy 3.5 189767-52-0, FluorX  
 195395-80-3, Spectrum Green 220356-37-6, VECTOR Red  
 223786-97-8, Spectrum Aqua 272457-05-3, Cy 0 272457-06-4, Cy  
 0.5 272457-19-9, Cy 1 (dye) 272457-27-9, Cy 1.5  
 272457-33-7, CryptoFluor S 272457-83-7, Spectrum Blue  
 272457-89-3, Spectrum Gold 272458-01-2, Spectrum Red  
 (as label; in situ method of analyzing cells by staining with  
 multiple stains and using a spectral data collection device)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L49 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:502905 HCAPLUS

DOCUMENT NUMBER: 131:158834

TITLE: Cationic dyes, their preparation,  
 and hair preparations containing  
 such dyes

INVENTOR(S): Braun, Hans-Juergen; Czigler, Thomas;  
 Umbricht, Gisela; Goettel, Otto; Kripp,  
 Thomas-Christian

PATENT ASSIGNEE(S): Wella A.-G., Germany

SOURCE: Ger. Offen., 24 pp.

DOCUMENT TYPE: CODEN: GWXXBX  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 German  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19802940	A1	19990805	DE 1998-19802940	1998 0127
DE 19802940	C2	20000203	DE 1998-19802940	1998 0127

PRIORITY APPLN. INFO.: <--

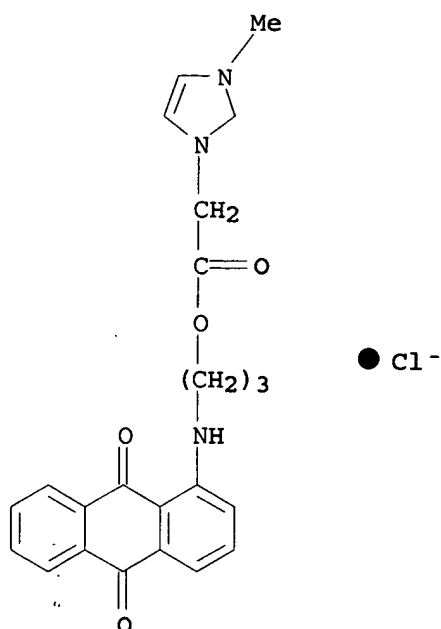
OTHER SOURCE(S): MARPAT 131:158834

AB Nonoxidative hair dyes have the structure (RXCOY)nBz+ zA-, where A is an anion, B is a group containing pos. charged N, P or S, especially a quaternized aromatic heterocycle (such as imidazolium), R is a chromophoric radical, X is O or NR1 (R1 = H, C1-6 alkyl), and Y is CH2 or an (un)substituted C2-6 alkylene group. Thus, C.I. Disperse Red 13 was esterified with ClCH2COCl, and the product was used to quaternize N-methylimidazole to produce a cationic dye. Hair was contacted with a solution of 2.5 mmol of the dye, 10.0 g EtOH, and 10.0 g 25% aqueous polyethylene glycol monostearyl ether in 100 g H2O for 20 min at 40°, rinsed, shampooed, rinsed and dried to show a Bordeaux red color with L\*a\*b\* values L = 28.5, a = 36.6, and b = 8.9, which withstood ≥10 washings.

IT 237065-49-5P 237065-50-8P 237065-51-9P  
 (preparation of cationic hair dyes)

RN 237065-49-5 HCAPLUS

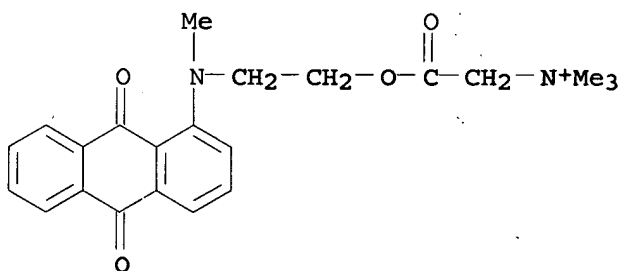
CN 1H-Imidazolium, 1-[2-[3-[(9,10-dihydro-9,10-dioxo-1-anthracenyl)amino]propoxy]-2-oxoethyl]-3-methyl-, chloride (9CI)  
 (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

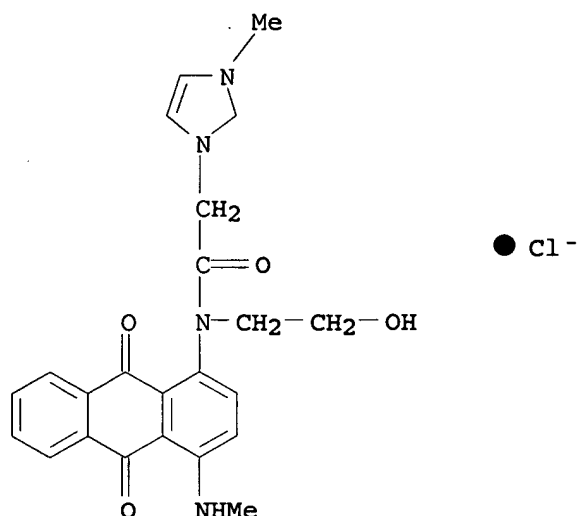
RN 237065-50-8 HCAPLUS

CN Ethanaminium, 2-[2-[(9,10-dihydro-9,10-dioxo-1-anthracenyl)methylamino]ethoxy]-N,N,N-trimethyl-2-oxo-, chloride (9CI) (CA INDEX NAME)



RN 237065-51-9 HCAPLUS

CN 1H-Imidazolium, 1-[2-[[[9,10-dihydro-4-(methylamino)-9,10-dioxo-1-anthracenyl] (2-hydroxyethyl) amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC ICM C09B069-06

ICS A61K007-13; D06P001-41; D06P003-18; C07F009-54; C07C245-02;  
C07C229-00; C07C381-12

ICA C09B051-00; C09B019-02; C09B029-00; C09B001-00; C09B057-00

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and  
Photographic Sensitizers)

Section cross-reference(s): 62

ST cationic azo hair dye

IT Hair preparations

(dyes, cationic; preparation of cationic hair  
dyes)

IT 19277-21-5P 237065-32-6P 237065-33-7P 237065-34-8P  
237065-35-9P 237065-36-0P 237065-38-2P 237065-39-3P  
237065-40-6P 237065-41-7P 237065-42-8P 237065-43-9P  
237065-44-0P 237065-45-1P 237065-46-2P 237065-47-3P  
237065-48-4P 237065-49-5P 237065-50-8P  
237065-51-9P 237065-52-0P 237065-54-2P 237065-55-3P  
237065-56-4P 237065-57-5P 237065-58-6P 237065-59-7P  
237065-60-0P 237065-61-1P 237065-62-2P 237065-63-3P  
237065-64-4P 237065-65-5P 237065-66-6P 237065-67-7P

(preparation of cationic hair dyes)

IT 24304-85-6P 66261-56-1P 79307-81-6P 79307-82-7P  
237065-21-3P 237065-22-4P 237065-23-5P 237065-24-6P  
237065-25-7P 237065-26-8P 237065-27-9P 237065-28-0P  
237065-29-1P 237065-30-4P

(preparation of cationic hair dyes)

IT 75-50-3, Trimethylamine, reactions 79-04-9, Chloroacetyl  
chloride 91-22-5, Quinoline, reactions 110-86-1, Pyridine,  
reactions 121-44-8, reactions 280-57-9, DABCO 539-17-3  
616-47-7, N-Methylimidazole 625-36-5, 3-Chloropropionyl chloride  
626-67-5, 1-Methylpiperidine 998-40-3, Tributylphosphine  
1072-62-4, 2-Ethylimidazole 1122-58-3, 4-(Dimethylamino)pyridine  
2478-13-9 2653-68-1, 1-[(4-Aminophenyl)azo]-2-naphthol  
2872-52-8, C.I. Disperse Red 1 3180-81-2, C.I. Disperse Red 13  
4540-00-5, C.I. Disperse Red 7 5960-58-7, 1-[(2-  
Hydroxyethyl)methylamino]anthraquinone 7623-09-8,  
2-Chloropropionyl chloride 13556-29-1, 1-[(3-  
Aminopropyl)amino]anthraquinone 22118-09-8, Bromoacetyl chloride

50995-97-6, 2-Allylimidazole 59320-13-7 62956-45-0,  
 1-[(3-Hydroxypropyl)amino]anthraquinone 68516-81-4 86722-66-9,  
 1-(2-Hydroxyethylamino)-4-(methylamino)anthraquinone 88638-70-4  
 100834-34-2 132246-82-3 237065-17-7, N-(2-Aminoethyl)-4-[(4-  
 nitrophenyl)azo]aniline 237065-18-8 237065-19-9 237065-31-5  
 (preparation of cationic hair dyes)

L49 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:330482 HCAPLUS

DOCUMENT NUMBER: 130:335014

TITLE: Distinguishing of viable, early apoptotic and  
necrotic cells

INVENTOR(S): Bolton, Wade E.; Koester, Steven K.

PATENT ASSIGNEE(S): Coulter International Corp., USA

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924832	A1	19990520	WO 1998-US23667	1998 1106

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W: JP

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,  
MC, NL, PT, SE

US 5945291	A	19990831	US 1997-966937	1997 1110
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PRIORITY APPLN. INFO.: US 1997-966937 A  
1997  
1110

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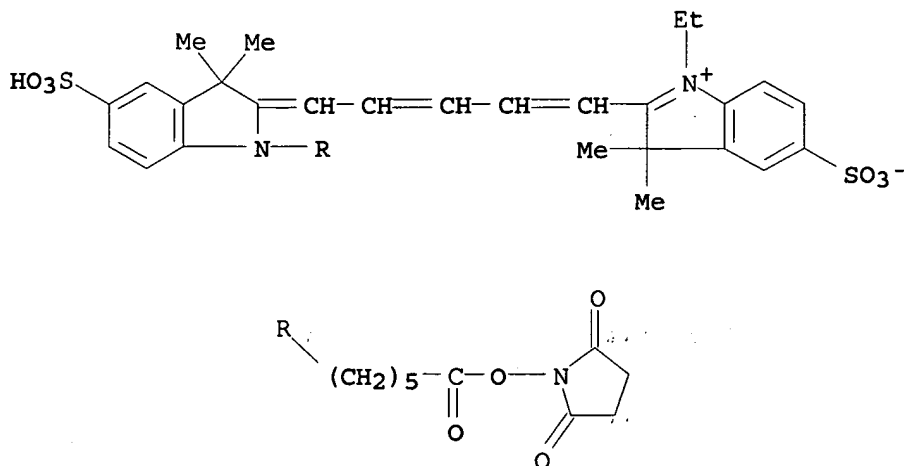
AB The present invention provides a method for distinguishing between viable, early apoptotic, late apoptotic and necrotic cells utilizing multi-color immunofluorescence. The method of the invention involves providing a first binding protein specific for an apoptotic-associated antigen labeled with a first visually detectable label, a second binding protein specific for an apoptotic-associated antigen labeled with a second visually detectable label, and a third binding protein specific for an intracellular antigen common to eukaryotic cells labeled with third visually detectable label, wherein said first, second, and third visually detectable labels are distinguishable. In a currently preferred embodiment, the invention provides a method involving the steps of contacting a sample of cells with anti-tubulin-FITC, thereby providing pos. and neg. anti-tubulin-FITC populations, contacting the cells with APO2.7-phycoerythrin, permeabilizing the cells with digitonin, staining the cells with APO2.7-phycoerythrin-cyanin dye 5, and analyzing the cells by flow cytometry to distinguish viable cells, early apoptotic cells, late apoptotic cells and necrotic cells.

IT 146368-14-1, Cy5

(Cy 5; distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM G01N033-50

ICS G01N033-569; G01N033-68; G01N015-14

CC 9-10 (Biochemical Methods)

Section cross-reference(s): 6, 13

IT Actins

**Keratins**

Phosphatidylserines

Tubulins

(distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

IT 146368-14-1, Cy5

(Cy 5; distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:243743 HCAPLUS

DOCUMENT NUMBER: 114:243743

TITLE: Photoaffinity labeling and biochemical characterization of binding proteins for pheromones, juvenile hormones, and peptides

AUTHOR(S): Prestwich, Glenn D.

CORPORATE SOURCE: Dep. Chem., State Univ. New York, Stony Brook, NY, 11794-3400, USA

SOURCE: Insect Biochemistry (1991), 21(1), 27-40  
CODEN: ISBCAN; ISSN: 0020-1790

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Radiolabeled photoaffinity analogs can be used to purify and characterize proteins involved in pheromone perception, juvenile



hormone (JH) action, and neuropeptide reception. Several photoaffinity analogs and purification strategies are described for each of these physiol. targets. First, a diazoacetate photoaffinity label is used to selectively modify the pheromone binding protein of the gypsy moth, *Lymantria dispar*. Reverse-phase HPLC is then employed to fractionate the male antennal proteins. Second, a tandem procedure involving preparative isoelec. focusing (IEF) and ion-exchange (IEX) HPLC is employed for the purification of the *Manduca sexta* hemolymph juvenile hormone binding protein (JHBP), which has now been cloned and sequenced. A sep. application of this strategy for the purification of the 29-kDa JH I/methoprene receptor proteins from epidermal nuclei of *M. sexta* larvae is outlined. A new photolabel, farnesyl diazoketone, has been employed for the characterization of crustacean hemolymph Me farnesoate binding proteins. Third, the development of neuropeptide photoaffinity labels is described for two systems: (1) the red pigment concentrating hormone (RPCH) of shrimp and (2) the allatostatins isolated from the brain of the cockroach *Diploptera punctata*.

IT 133953-99-8P

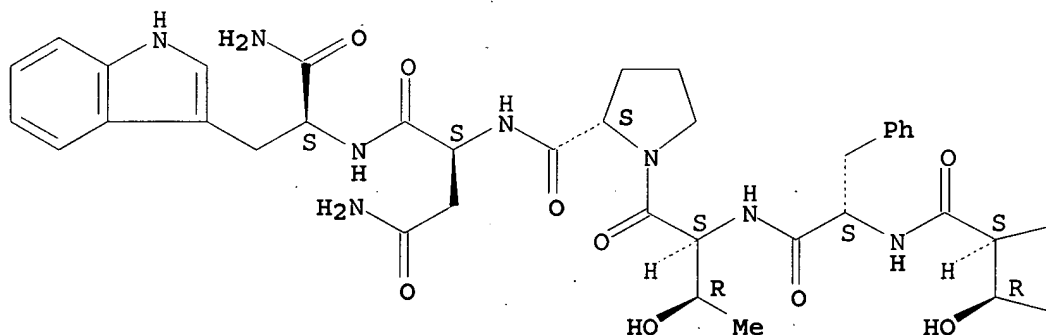
(preparation and reaction with sodium iodide)

RN 133953-99-8 HCAPLUS

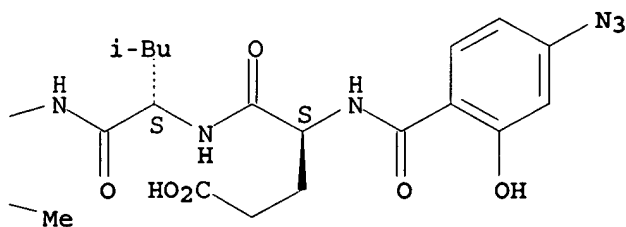
CN L-Tryptophanamide, N-(4-azido-2-hydroxybenzoyl)-L- $\alpha$ -glutamyl-L-leucyl-L-threonyl-L-phenylalanyl-L-threonyl-L-prolyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

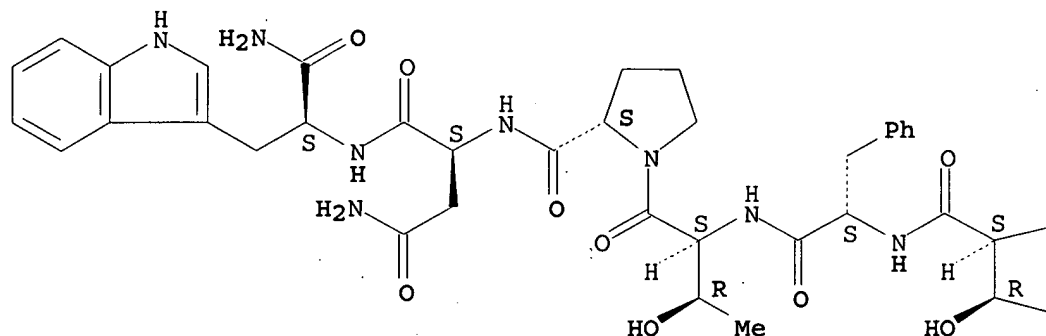


PAGE 1-B

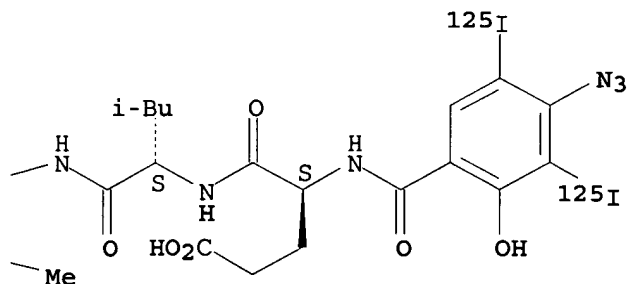


Absolute stereochemistry.

PAGE 1-A



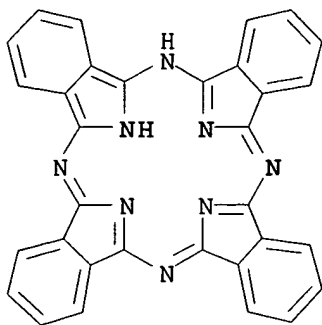
PAGE 1-B



L49 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1990:181395 HCAPLUS  
DOCUMENT NUMBER: 112:181395  
TITLE: Manufacture of metal phthalocyanine

**pigments** in the presence of cyanuric acid and its derivatives  
 INVENTOR(S): Segawa, Tomio; Maruyama, Kazuhiro; Ninomiya, Ritsu; Suyama, Genichi  
 PATENT ASSIGNEE(S): Kawasaki Kasei Chemicals, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01178556	A2	19890714	JP 1987-336849	1987 1231
JP 07119369	B4	19951220	<--	
US 4906747	A	19900306	US 1988-284613	1988 1215
			<--	
PRIORITY APPLN. INFO.:			JP 1987-336849	A 1987 1231
			<--	
AB	The title <b>pigments</b> are prepared by heating phthalic anhydride (and/or derivs.), urea, and metal compds. in the presence of a catalyst in an organic solvent or by heating phthalonitrile and metals or metal compds. in organic solvents, wherein the reaction is carried out in the presence of cyanuric acid and/or its derivs., resulting in high phthalocyanine yields without thickening of the reaction mixture during the reaction. Thus, phthalimide, urea, CuCl, NH <sub>4</sub> molybdate, cyanuric acid, and tert-amylbenzene were treated together at 170-210° for 4.5 h. The reaction mixture showed good flowability throughout the reaction, and the crude Cu phthalocyanine yield was 97 mol%.			
IT	21328-73-4P, Calcium phthalocyanine (manufacture of, for <b>pigments</b> , in presence of cyanuric acid derivs., with improved yield and workability)			
RN	21328-73-4 HCAPLUS			
CN	29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)			



● Ca

IC ICM C09B047-06  
ICS C07D487-22; C09B047-067

CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 42

ST metal phthalocyanine **pigment** manuf; cyanuric acid  
phthalocyanine **pigment** manuf; copper phthalocyanine  
**pigment** manuf

IT 132-16-1P, Iron(II) phthalocyanine 147-14-8P, Copper  
phthalocyanine 1661-03-6P, Magnesium phthalocyanine  
3317-67-7P, Cobalt phthalocyanine 7440-55-3DP, Gallium,  
complexes with phthalocyanines 7440-74-6DP, Indium, complexes  
with phthalocyanines 14055-02-8P 14325-24-7P, Manganese  
phthalocyanine 21328-73-4P, Calcium phthalocyanine  
(manufacture of, for **pigments**, in presence of cyanuric  
acid derivs., with improved yield and workability)

L49 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:80947 HCAPLUS

DOCUMENT NUMBER: 106:80947

TITLE: Intramitochondrial **dyes** allow  
selective in vitro photolysis of carcinoma  
cells

AUTHOR(S): Oseroff, A. R.; Ohuoha, D.; Ara, G.;  
McAuliffe, D.; Foley, J.; Cincotta, L.

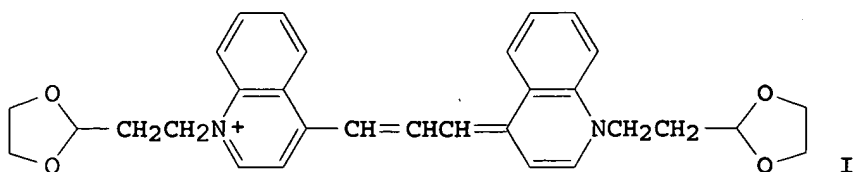
CORPORATE SOURCE: Dep. Dermatol., Harvard Med. Sch., Boston, MA,  
02114, USA

SOURCE: Proceedings of the National Academy of  
Sciences of the United States of America  
(1986), 83(24), 9729-33  
CODEN: PNASA6; ISSN: 0027-8424

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



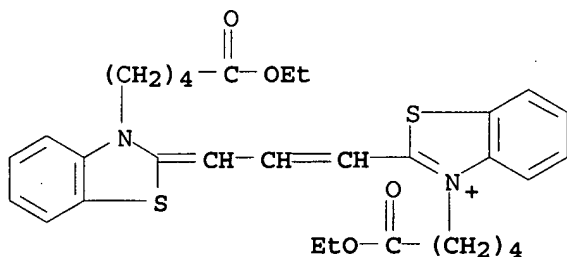
AB Carcinoma cell mitochondria preferentially accumulate and retain certain cationic **dyes** to a much greater extent than do most normal cells. Thus, they can potentially serve as targets for highly selective photochemotherapy. Ten rhodamine and cyanine **dyes** were evaluated as carcinoma-specific mitochondrial photosensitizers in vitro. The most effective, N,N'-bis(2-ethyl-1,3-dioxolane)kryptocyanine (I) caused marked, light-dependent killing of human bladder, squamous, and colon carcinoma cell lines after 30-min incubations at 1-0.01  $\mu\text{M}$  but was minimally toxic to human **keratinocytes** and to normal monkey kidney epithelial cells (CV-1). Carcinoma cell phototoxicity was proportional to the amount of **dye** incorporated by the different cell lines. Selective killing ratios were 70-1000 for 0.1  $\mu\text{M}$  **dye** and light doses of 100-175 J/cm<sup>2</sup> at 680-720 nm.

IT 106789-29-1

(metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

RN 106789-29-1 HCAPLUS

CN Benzothiazolium, 3-(5-ethoxy-5-oxopentyl)-2-[3-[3-(5-ethoxy-5-oxopentyl)-2(3H)-benzothiazolylidene]-1-propenyl]-, bromide (9CI)  
(CA INDEX NAME)



● Br<sup>-</sup>

CC 8-9 (Radiation Biochemistry)

ST carcinoma mitochondria cationic **dye** phototherapy

IT Mitochondria

(cationic **dyes** metabolism by, of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT Carcinoma

(phototherapy of, cationic **dye** metabolism by mitochondria in relation to)

IT Biological transport

(absorption, of cationic **dyes**, by mitochondria of)

normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT **Dyes**, cyanine  
(cationic, metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT **Dyes**  
(cationic, rhodamine, mitochondria of normal and carcinoma cells of human metabolism of, carcinoma phototherapy in relation to)

IT Intestine, neoplasm  
(colon, cationic **dyes** metabolism by mitochondria of, phototherapy in relation to)

IT Kidney, metabolism  
(epithelium, cationic **dyes** metabolism by mitochondria of, of human, cancer phototherapy in relation to)

IT Skin, metabolism  
(keratinocyte, cationic **dyes** metabolism by mitochondria of, of human, cancer phototherapy in relation to)

IT Bladder  
(neoplasm, cationic **dyes** metabolism by mitochondria of, phototherapy in relation to)

IT Carcinoma  
(squamous cell, cationic **dye** metabolism by mitochondria of, phototherapy in relation to)

IT 989-38-8 14806-50-9, 3,3'-Diethyloxadicarbocyanine iodide  
15185-43-0, 3,3'-Diethyloxatricarbocyanine iodide 36536-22-8  
62669-70-9 106789-29-1 106789-30-4 106796-35-4  
106807-07-2 106807-08-3  
(metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

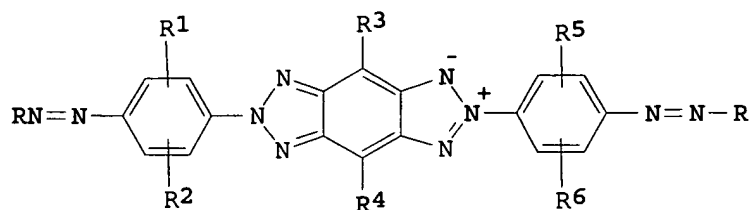
L49 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:77329 HCAPLUS  
DOCUMENT NUMBER: 100:77329  
TITLE: Electrophotographic photosensitive materials  
PATENT ASSIGNEE(S): Copyer Co., Ltd., Japan; Canon K. K.  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57169757	A2	19821019	JP 1981-54380	1981 0413
JP 01053458	B4	19891114	JP 1981-54380	1981 0413

PRIORITY APPLN. INFO.: <--

GI



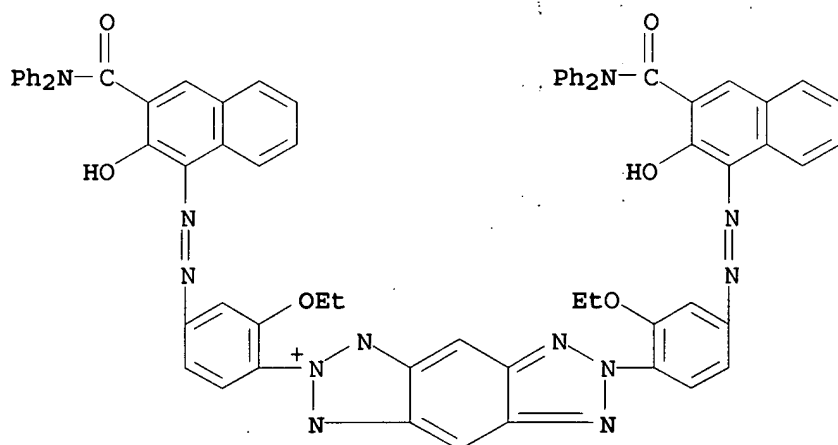
AB Electrophotog. photosensitive materials contain a bisazo dye of the general formula I (R = aromatic coupler moiety; R1, R2, R3, R4, R5, R6 = H, halo, alkyl, alkoxy, OH). Thus, an Al support coated with a poly(vinyl alc.) subbing layer was coated with a composition containing I (R = 3-phenylcarbomoyl-2-hydroxy-1-naphthyl; R1 = R2 = R3 = R4 = R5 = R6 = H) and a polyester, and coated with a composition containing p-diethylaminobenzaldehyde-N,N-diphenylhydrazone and poly(Me methacrylate) to give a composite electrophotog. plate having good sensitivity and good electrostatic characteristics.

IT 88514-92-5

(electrophotog. charge-generating pigment)

RN 88514-92-5 HCAPLUS

CN Benzo[1,2-d:4,5-d']bistriazolium, 2,6-bis[4-[[3-[(diphenylamino)carbonyl]-2-hydroxy-1-naphthalenyl]azo]-2-ethoxyphenyl]-1,6-dihydro-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST composite electrophotog plate; charge generating bisazo pigment electrophotog

IT Photography, electro-, photoconductors

Photography, electro-, plates

(composite, charge-generating bisazo pigments for)

IT 88514-89-0 88514-90-3 88514-91-4 88514-92-5

88514-93-6 88514-94-7 88514-95-8 88514-96-9 88514-97-0

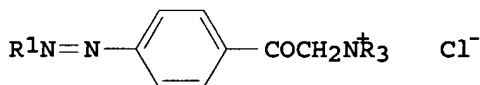
88514-98-1 88526-90-3 88526-91-4 88642-09-5

(electrophotog. charge-generating pigment)

L49 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1981:570990 HCAPLUS  
 DOCUMENT NUMBER: 95:170990  
 TITLE: Yellow to scarlet azo cationic **dyes**  
 for application to polyacrylonitrile fibers  
 INVENTOR(S): Khanna, Ish Kumar; Ayyangar, Nagaraj Ramanuj  
 PATENT ASSIGNEE(S): Council of Scientific and Industrial Research,  
 India  
 SOURCE: Indian, 10 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 148462	A	19810228	IN 1978-DE558	1978 0729
			<--	
PRIORITY APPLN. INFO.:			IN 1978-DE558	A 1978 0729
			<--	

GI



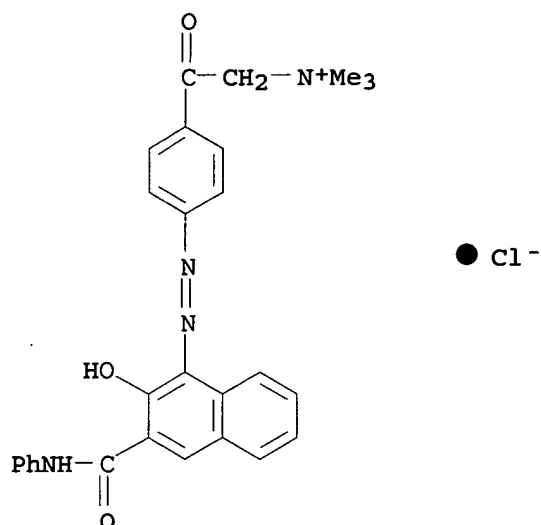
AB Title **dyes** of general structure I are prepared, where N+R3 = N+Et3, or pyridinio and R1 is a substituted benzene, naphthalene, acetoacetate, acetoacetamide, pyrazolone, hydroxypyridinol, homophthalimide, or indole residue. Thus, diazotization of p-H2NC6H4COCH2N+Me3Cl- [24293-73-0] and coupling with m-MeC6H4NH2 [108-44-1] gave I [R = Me, R1 = 2,4-Me(H2N)C6H3] [36904-42-4], a brilliant orange **dye** for acrylic fibers. Nine other I were similarly prepared

IT 79499-13-1P  
 (manufacture of, as **dye** for acrylic fibers)

RN 79499-13-1 HCAPLUS

CN Benzeneethanaminium, 4-[[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]-N,N,N-trimethyl-β-oxo-, chloride (9CI) (CA INDEX NAME)





IC C09B029-00  
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST cationic azo **dye**; phenacylammonium azo **dye**;  
 acrylic fiber azo **dye**  
 IT Acrylic fibers, uses and miscellaneous  
 (dyes for, [(arylazo)phenacyl]trimethylammonium  
 chlorides as)  
 IT **Dyes**, azo  
 (cationic, [(arylazo)phenacyl]trimethylammonium chlorides, for  
 acrylic fibers)  
 IT 27678-39-3P 36904-42-4P 61901-59-5P 71198-81-7P  
 79499-13-1P 79499-14-2P 79499-15-3P 79499-16-4P  
 79499-17-5P 79519-78-1P  
 (manufacture of, as **dye** for acrylic fibers)

L49 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1979:139045 HCAPLUS

DOCUMENT NUMBER: 90:139045

TITLE: Azides. Part I. Reactive **dyes**  
 containing the azido group for  
 synthetic-polymer fibers

AUTHOR(S): Ayyangar, N. R.; Badami, N. V.; Tilak, B. D.

CORPORATE SOURCE: Natl. Chem. Lab., Poona, India

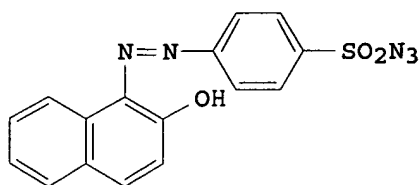
SOURCE: Journal of the Society of Dyers and Colourists  
 (1979), 95(1), 13-19

CODEN: JSDCAA; ISSN: 0037-9859

DOCUMENT TYPE: Journal

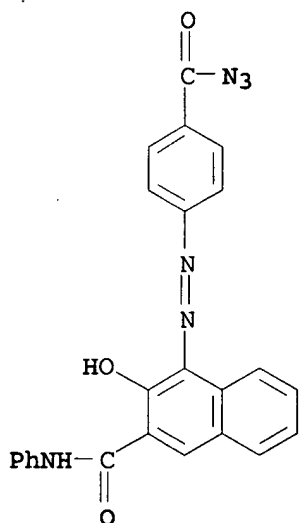
LANGUAGE: English

GI



I

- AB Azo and anthraquinone dyes containing sulfonyl azide, carbonyl azide, azidoaryl, and azidoacetamido groups, e. g. I [2920-03-8], were prepared which react with synthetic fibers; their dyeing and fastness properties on acetate, polyamide, and polyester fibers are described.
- IT 69702-78-9  
(reactive dyes, for synthetic fibers)
- RN 69702-78-9 HCAPLUS
- CN Benzoyl azide, 4-[[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



- CC 40-5 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
- ST fiber reactive dye azide; anthraquinone dye azido reactive; azo dye azido reactive; acetate fiber dye reactive; polyamide fiber dye reactive; polyester fiber dye reactive
- IT Dyes, reactive  
(azide group-containing, for synthetic fibers)
- IT Acetate fibers, uses and miscellaneous  
Polyamide fibers, uses and miscellaneous  
Polyester fibers, uses and miscellaneous  
(dyes for, azide group-containing reactive)
- IT 42897-85-8 69702-69-8  
(dye, for acetate, polyamide and polyester fibers, preparation of)
- IT 2920-03-8 34563-92-3 35472-89-0 35954-42-8 41657-72-1  
69631-39-6 69702-68-7 69702-70-1 69702-71-2 69702-72-3

69702-73-4 69702-74-5 69702-75-6 69702-76-7 69702-77-8  
 69702-78-9 69702-79-0 69702-80-3 69702-81-4  
 69702-82-5 69702-83-6 69702-84-7 69702-85-8 69702-86-9  
 69702-87-0 69702-90-5 69702-91-6 69702-92-7 69702-93-8  
 69702-94-9 69702-95-0 69726-24-5 69797-13-3

(reactive **dyes**, for synthetic fibers)

L49 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:512303 HCAPLUS

DOCUMENT NUMBER: 89:112303

TITLE: Water-soluble quaternary ammonium **dyes**

INVENTOR(S): Jefferies, Patrick J.; Crounse, Nathan N.

PATENT ASSIGNEE(S): Sterling Drug Inc., USA

SOURCE: U.S., 77 pp. Continuation-in-part of U.S.  
 3,839,426.

CODEN: USXXAM

DOCUMENT TYPE:

**Patent**

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 3996282	A	19761207	US 1974-486180	1974 0705
US 3709903	A	19730109	<-- US 1970-51676	1970 0701
US 3839426	A	19741001	<-- US 1970-51690	1970 0701
GB 1333837	A	19731017	<-- GB 1971-29451	1971 0622
CA 940528	A1	19740122	<-- CA 1971-116474	1971 0623
US 3784599	A	19740108	<-- US 1971-201153	1971 1122
US 3935182	A	19760127	<-- US 1973-332511	1973 0214
CA 940121	A2	19740115	<-- CA 1973-163853	1973 0216
US 4103092	A	19780725	<-- US 1975-595864	1975 0714
			<--	

US 4065500	A	19771227	US 1976-672428	1976 0331
			<--	
US 4146558	A	19790327	US 1977-839975	1977 1006
			<--	
US 4206144	A	19800603	US 1978-963031	1978 1122
			<--	
PRIORITY APPLN. INFO.:			US 1966-551868	A2 1966 0523
			<--	
			US 1968-777884	A2 1968 1121
			<--	
			US 1970-51676	A2 1970 0701
			<--	
			US 1970-51690	A2 1970 0701
			<--	
			US 1971-201153	A2 1971 1122
			<--	
			US 1973-332511	A2 1973 0214
			<--	
			US 1966-531868	A2 1966 0304
			<--	
			CA 1969-65436	A3 1969 1021
			<--	
			US 1970-51673	A2 1970 0701
			<--	
			US 1974-486180	A2 1974 0705
			<--	
			US 1975-595864	A2 1975 0714
			<--	
			US 1976-672428	A2 1976 0331
			<--	

A2

←--

A2

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GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

AB    Approx. 100 cationic water-soluble azo and disazo **dyes** for paper were prepared which had good bleachability and good bleed-fastness properties. The **dyes** were prepared by conventional azo coupling techniques and the preparation of intermediates was extensively described. Representative of the **dyes** prepared are: I (R = R1) [38901-94-9], II [40948-99-0], and III [66755-16-6].

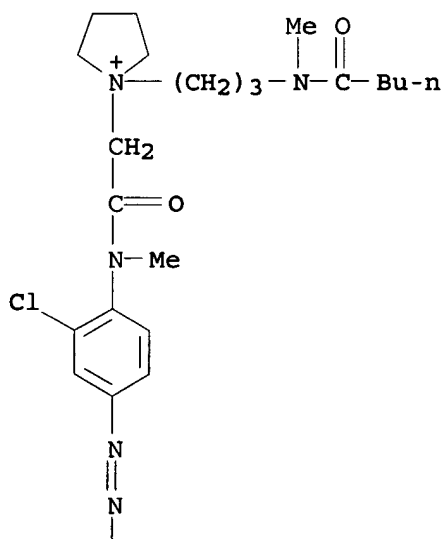
IT 66754-74-3P

(preparation and spectrum of)

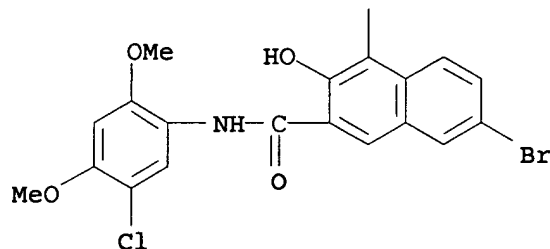
RN 66754-74-3 HCAPLUS

CN Pyrrolidinium, 1-[2-[[4-[[6-bromo-3-[[5-chloro-2,4-dimethoxyphenyl]amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-2-chlorophenyl]methylamino]-2-oxoethyl]-1-[3-[methyl(1-oxopentyl)amino]propyl]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

● Cl<sup>-</sup>

IC C07C087-30  
 INCL 260567600M  
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 Section cross-reference(s): 43  
 ST azo cationic paper dye; disazo cationic paper dye; ammonium azo paper dye  
 IT Paper  
 (dyes for, azo, containing quaternary ammonium groups, manufacture of)  
 IT Dyes, azo  
 (quaternary ammonium group-containing, for paper, preparation of)  
 IT 119-93-7 2425-95-8  
 (coupling of diazotized, in paper dye manufacture)  
 IT 38901-94-9 38901-95-0 40948-42-3 40948-80-9 40948-81-0  
 40948-82-1 40948-84-3 40948-91-2 40948-92-3  
 (dye, for paper, preparation of)  
 IT 40948-99-0P 40949-12-0P 66755-04-2P 66755-05-3P  
 66755-06-4P 66755-07-5P 66755-14-4P 66755-15-5P  
 (dye, preparation of)  
 IT 38901-93-8P 40948-29-6P  
 (preparation and coupling of diazotized in paper dye manufacture)  
 IT 40948-32-1P  
 (preparation and coupling use in azo dye manufacture)  
 IT 4433-79-8P 38901-96-1P 40948-44-5P 40948-45-6P 40948-47-8P  
 40948-54-7P 40948-55-8P 40948-56-9P 40948-58-1P  
 40948-60-5P 40948-62-7P 40948-63-8P 40948-64-9P  
 40948-66-1P 40948-67-2P 40948-68-3P 40948-70-7P  
 40948-72-9P 40948-73-0P 40948-74-1P 40948-75-2P  
 40948-77-4P 40948-78-5P 40948-79-6P 40948-86-5P  
 40948-87-6P 40948-89-8P 40948-90-1P 40948-94-5P  
 40948-95-6P 40948-96-7P 40948-97-8P 40949-01-7P  
 40949-02-8P 40949-03-9P 40949-05-1P 40949-06-2P  
 40949-07-3P 40949-08-4P 40949-09-5P 40949-11-9P  
 40988-54-3P 40988-55-4P 51023-93-9P 51332-33-3P  
 51332-34-4P 51332-35-5P 51332-36-6P 51332-37-7P  
 51332-38-8P 51332-39-9P 51332-40-2P 51383-97-2P  
 58795-67-8P 58795-68-9P 58795-69-0P 58836-03-6P  
 58836-04-7P 66754-69-6P 66754-70-9P 66754-72-1P  
 66754-73-2P 66754-74-3P 66754-75-4P 66754-76-5P  
 66754-77-6P 66754-78-7P 66754-79-8P 66754-80-1P  
 66754-81-2P 66754-82-3P 66754-83-4P 66754-84-5P

66754-85-6P 66754-86-7P 66754-87-8P 66754-88-9P  
 66754-89-0P 66754-90-3P 66754-91-4P 66754-92-5P  
 66754-93-6P 66754-94-7P 66754-95-8P 66754-96-9P  
 66754-97-0P 66754-98-1P 66754-99-2P 66755-00-8P  
 66755-01-9P 66755-02-0P 66755-03-1P 66755-12-2P  
 66755-13-3P 66755-16-6P 66776-98-5P 66776-99-6P

(preparation and spectrum of)

L49 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:586061 HCAPLUS

DOCUMENT NUMBER: 87:186061

TITLE: Basic disazo dyes having two  
 2-hydroxy-3-substituted carbamoylnaphthyl-1-  
 azophenyl groups for dyeing paper

INVENTOR(S): Moser, Helmut; Von Tobel, Hans

PATENT ASSIGNEE(S): Sandoz A.-G., Switz.

SOURCE: U.S., 21 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

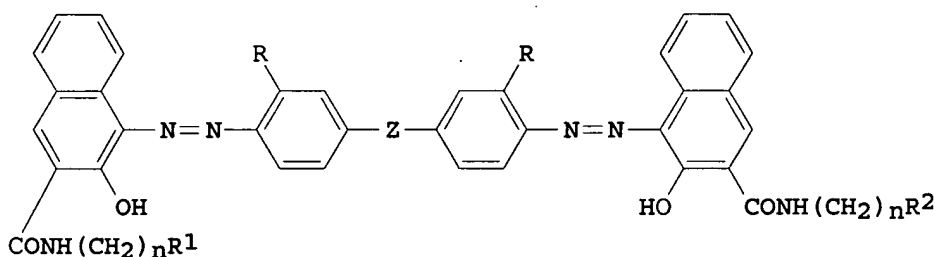
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4046502	A	19770906	US 1975-641485	1975 1217
<--				
PRIORITY APPLN. INFO.:			US 1970-95336	A1 1970 1204
<--				
			US 1973-418451	A3 1973 1123

GI



AB Eighteen disazo dyes (I, R = H, MeO; R1, R2 = NMe2, N+Me3 X-; Z = direct bond, NH, NHCONH, CH2, CH:CH; X = Cl, MeSO4; n = 2, 3) are prepared and used to dye paper fast blue to violet shades. Thus, dianisidine [119-90-4] is tetrazotized and coupled with 2,3-HOC10H6CONH(CH2)3NMe2 [19795-11-0] to give I(R = MeO, R1 = R2 = NMe2, Z = direct bond, n = 3) [34072-24-7].

IT 64617-84-1

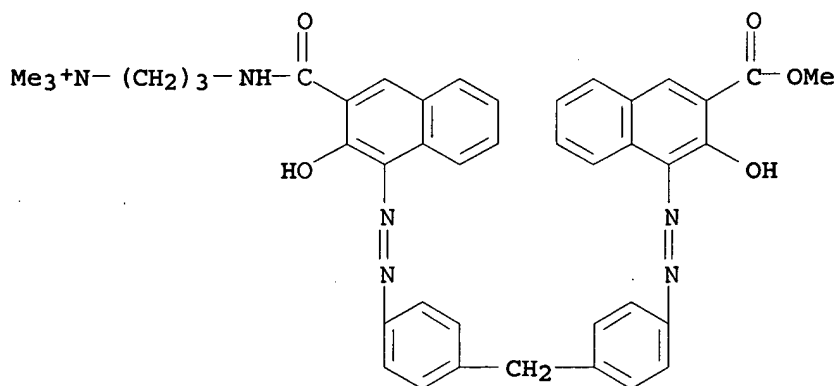
(reaction of, with dimethylhydrazine)

RN 64617-84-1 HCAPLUS  
 CN 1-Propanaminium, 3-[[[3-hydroxy-4-[[4-[[4-[[2-hydroxy-3-(methoxycarbonyl)-1-naphthalenyl]azo]phenyl]methyl]phenyl]azo]-2-naphthalenyl]carbonyl]amino]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 64617-83-0

CMF C42 H41 N6 O5



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

IC D21H001-46  
 INCL 008007000  
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST disazo hydroxynaphthamide paper dye; basic disazo paper dye; azo basic paper dye  
 IT Dyes, azo  
 ((aminoalkyl)carbamoyl)naphthol disazo derivs., for paper)  
 IT Paper  
 (dyes for, ((aminoalkyl)carbamoyl)naphtho disazo derivs. as)  
 IT 57-14-7 124-40-3, uses and miscellaneous  
 (in manufacture of disazo basic paper dyes)  
 IT 101-77-9 621-96-5 4550-72-5 19795-11-0  
 (in manufacture of disazo paper dyes)  
 IT 64617-47-6 64617-77-2 64617-84-1  
 (reaction of, with dimethylhydrazine)

L49 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:607567 HCAPLUS

DOCUMENT NUMBER: 83:207567

TITLE: Temporarily solubilized disperse dyes



INVENTOR(S): Koller, Stefan; Aeschlimann, Peter; Karlen,  
 Urs; Liechti, Hans W.  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Ger. Offen., 95 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2509596	A1	19750911	DE 1975-2509596	1975 0305
FR 2384829	A1	19781020	FR 1975-6714	1975 0304
BE 826352	A1	19750908	BE 1975-154054	1975 0306
NL 7502689	A	19750909	NL 1975-2689	1975 0306
ZA 7501381	A	19760225	ZA 1975-1381	1975 0306
AU 7578859	A1	19760909	AU 1975-78859	1975 0306
ES 435339	A1	19770516	ES 1975-435339	1975 0306
JP 50122523	A2	19750926	JP 1975-27238	1975 0307
BR 7501366	A	19751209	BR 1975-1366	1975 0307
PRIORITY APPLN. INFO.:			CH 1974-3211	A 1974 0307

GI For diagram(s), see printed CA Issue.  
 AB Azo and anthraquinone disperse dyes were made temporarily water soluble by incorporating a group of structure RCH<sub>2</sub>CO<sub>2</sub>, where R is a diammonium or amino ammonium residue. For example, reaction of I(R = Cl) [51083-73-9] with 1,4-dimethylpiperazine [106-58-1] in Me<sub>2</sub>CO at 50° gave dye I (R = 1,4-dimethyl-1-piperazinio (chloride))

[57277-12-0], which has good solubility in cold water. Application of this dye to polyester for 1 hr at 130°/pH 4-7 by the exhaust method gave a fast, level red dyeing. Four other dyes were similarly prepared

IT 57323-56-5

(dye, for polyester fibers, preparation of)

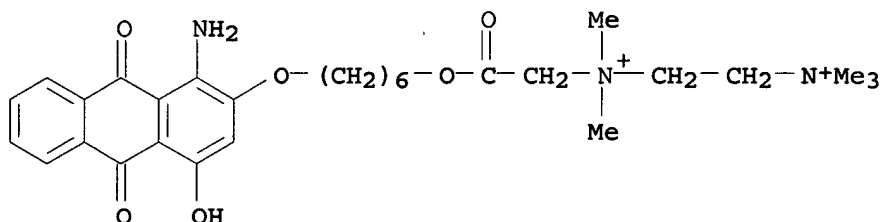
RN 57323-56-5 HCAPLUS

CN 1,2-Ethanediaminium, N-[2-[[6-[(1-amino-9,10-dihydro-4-hydroxy-9,10-dioxo-2-anthracenyl)oxy]hexyl]oxy]-2-oxoethyl]-N,N,N',N',N'-pentamethyl-, chloride methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 57323-55-4

CMF C29 H41 N3 O6



CM 2

CRN 21228-90-0

CMF C H3 O4 S

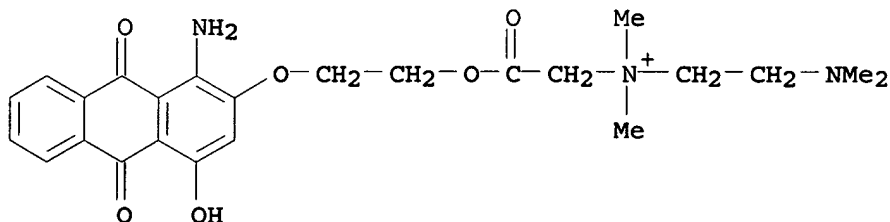
Me-O-SO<sub>3</sub><sup>-</sup>

IT 57277-11-9

(reaction with dimethyl sulfate)

RN 57277-11-9 HCAPLUS

CN Ethanaminium, 2-[2-[(1-amino-9,10-dihydro-4-hydroxy-9,10-dioxo-2-anthracenyl)oxy]ethoxy]-N-[2-(dimethylamino)ethyl]-N,N-dimethyl-2-oxo-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

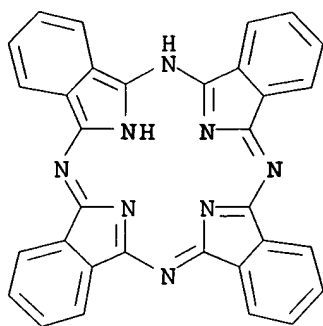
IC C09B  
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST disperse **dye** temporarily solubilized; azo **dye**  
 temporarily solubilized; anthraquinone **dye** temporarily  
 solubilized; ammonioacetoxo solubilizing group **dye**  
 IT **Dyes**, anthraquinone  
     **Dyes**, azo  
     (disperse, temporarily solubilized, for polyester fibers)  
 IT Polyester fibers  
     (**dyes** for, disperse, temporarily solubilized)  
 IT 57277-05-1 57277-08-4 57277-10-8 57277-12-0  
     57323-56-5  
     (**dye**, for polyester fibers, preparation of)  
 IT 79-04-9  
     (esterification by, of hydroxyalkyl azo **dyes**)  
 IT 110-18-9 110-95-2  
     (quaternization of, by chloroacetoxo group-containing azo  
     **dye**)  
 IT 57277-11-9  
     (reaction with dimethyl sulfate)

L49 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1975:549106 HCAPLUS  
 DOCUMENT NUMBER: 83:149106  
 TITLE: Removal of uncomplexed copper from copper  
     phthalocyanine  
 INVENTOR(S): Plankenhorn, Erwin  
 PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 7 pp.  
     CODEN: GWXXBX  
 DOCUMENT TYPE: **Patent**  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2401088	A1	19750724	DE 1974-2401088	1974 0110

PRIORITY APPLN. INFO.: <--  
 DE 1974-2401088 A 1974  
 0110

AB Noncomplexed ionic Cu was removed from crude copper phthalocyanine  
 (I) [147-14-8] by heating I containing 155-350 ppm Cu in aqueous mineral  
 acid with calcium phthalocyanine [21328-73-4], which  
 complexes the Cu ion, filtering, and washing to neutrality giving  
 final Cu contents of 20-37 ppm.  
 IT 21328-73-4  
     (copper phthalocyanine treatment by, for noncomplexed copper  
     removal)  
 RN 21328-73-4 HCAPLUS  
 CN 29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)



● Ca

IC C09B  
 CC 40-8 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST ionic copper removal phthalocyanine; **pigment** copper  
 phthalocyanine purifn  
 IT 21328-73-4  
 (copper phthalocyanine treatment by, for noncomplexed copper  
 removal)

L49 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1975:45037 HCAPLUS  
 DOCUMENT NUMBER: 82:45037  
 TITLE: Cationic azo **dyes**  
 INVENTOR(S): Moritz, Karl L.; Schuendehuetten, Karl H.  
 PATENT ASSIGNEE(S): Bayer A.-G.  
 SOURCE: Ger. Offen., 33 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: **Patent**  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2315637	A1	19741003	DE 1973-2315637	1973 0329
IT 1010832	A	19770120	IT 1974-42552	1974 0326
BE 812883	A1	19740927	BE 1974-142489	1974 0327
JP 49129721	A2	19741212	JP 1974-33629	1974 0327
GB 1460366	A	19770106	GB 1974-13781	

1974  
0328

FR 2223431

A1

19741025

<--  
FR 1974-110451974  
0329

PRIORITY APPLN. INFO.:

<--  
DE 1973-2315637

A

1973  
0329

&lt;--

GI For diagram(s), see printed CA Issue.

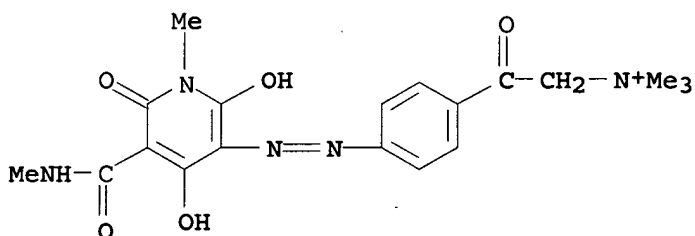
AB Fast cationic monoazo **dyes** for acrylic and acid-modified polyester fibers were prepared by coupling 2,4,6-triamino-, 4,6-diamino-2-oxo-, or 2,4,6-trihydroxypyridine derivs. with diazotized anilines containing a quaternary ammonium or hydrazinium group, or by first coupling with diazotized chloroalkyl-substituted anilines followed by quaternization. Thus, diazotization of 3-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>OCH<sub>2</sub>CH<sub>2</sub>N+Me<sub>2</sub>NH<sub>2</sub> Cl<sup>-</sup> [53816-20-9] and coupling with Et 2,4,6-trihydroxynicotinate [53815-27-3] gave cationic **dye** I [53816-18-5], yellow on acrylic fibers. Similarly, diazotization of 3,4-O<sub>2</sub>N(H<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>N+Me<sub>3</sub> Cl<sup>-</sup> [20280-54-0] and coupling with 1-methyl-2-(benzylimino)-3-cyano-4-(methylamino)-6-amino-1,2-dihydropyridine [39581-19-6] gave cationic **dye** (II) [53816-19-6], fast reddish brown on acrylic fibers. Eight other **dyes** were prepared

IT 53816-04-9P

(preparation of)

RN 53816-04-9 HCAPLUS

CN Benzeneethanaminium, 4-[[1,6-dihydro-2,4-dihydroxy-1-methyl-5-[(methylamino)carbonyl]-6-oxo-3-pyridinyl]azo]-N,N,N-trimethyl-β-oxo-, chloride (9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST azo cationic **dye**; pyridinediol azo **dye**;  
pyridinetriamine azo **dye**; acrylic fiber **dye**;  
polyester fiber **dye**

IT **Dyes**, azo

(cationic (phenylazo)pyridine derivs., for acrylic and  
polyester fibers)

IT Polyester fibers

(**dyes** for acid-modified, cationic (phenylazo)pyridine  
derivs. as)

IT Acrylic fibers  
 (dyes for, cationic (phenylazo)pyridine derivs. as)  
 IT 53816-03-8P 53816-04-9P 53816-05-0P 53816-06-1P  
 53816-07-2P 53816-18-5P 53816-19-6P 53831-79-1P  
 53896-85-8P 53896-86-9P  
 (preparation of)

L49 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:465195 HCAPLUS

DOCUMENT NUMBER: 81:65195

TITLE: Fiber-reactive cationic dyes

INVENTOR(S): Kenmochi, Hirohito; Yamamoto, Masakazu; Ikeda,  
 Takuo; Korenaga, Yohji; Takeda, Yoshio;  
 Ohkawa, Taksuaki

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 10 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48037967	B4	19731114	JP 1970-50664	1970 0610

PRIORITY APPLN. INFO.:

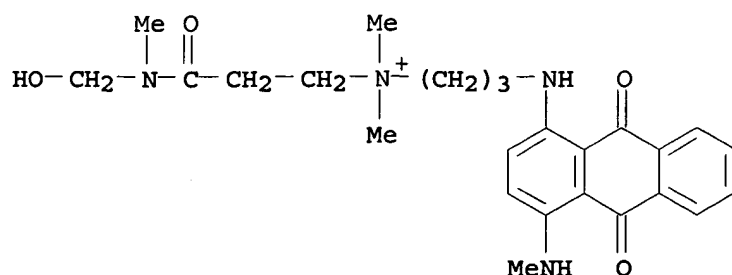
<--  
 JP 1970-50664  
 1970  
 0610

AB Cationic dyes containing amide groups linked to quaternary  
 N by a methylene or ethylene bridge are treated with formaldehyde  
 [50-00-0] in a lower alc. to give fiber-reactive dyes.  
 For example, azo dye I (R = H) [52028-88-3] was heated 3  
 hr at 60-5.deg. and pH 7.5 (Na<sub>2</sub>CO<sub>3</sub>) with HCHO in MeOH, refluxed 2  
 hr with oxalic acid, and salted out with NaCl to give I (R =  
 CH<sub>2</sub>OMe) [52028-89-4], which gives fast blue shades on cellulosic,  
 silk, wool, polyamide, vinal, and acrylic fibers. Similarly were  
 prepared 5 addnl. azo dyes, anthraquinone dye II  
 [52028-90-7], and benzindole dye III  
 [52028-76-9].

IT 52028-90-7P  
 (preparation of)

RN 52028-90-7 HCAPLUS

CN 1-Propanaminium, 1-[3-[[9,10-dihydro-4-(methylamino)-9,10-dioxo-1-  
 anthracenyl]amino]propyl]-3-[(hydroxymethyl)methylamino]-N,N-  
 dimethyl-3-oxo-, chloride (9CI) (CA INDEX NAME)

● Cl<sup>-</sup>

IC C09B  
 CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST anthraquinone dye cationic reactive; benzothiazolium azo dye reactive; thiazolium azo dye reactive; indole azo dye reactive; benzindole cationic dye reactive; triazolium azo dye reactive; azo cationic reactive dye  
 IT Dyes, reactive  
     (hydroxymethylated amide derivs. of cationic dyes)  
 IT Hydroxymethylation  
     (of amide derivs. of cationic dyes)  
 IT 52028-75-8P 52028-76-9P 52028-79-2P 52028-81-6P  
 52028-82-7P 52028-83-8P 52028-86-1P 52028-89-4P  
 52028-90-7P  
     (preparation of)  
 IT 50-00-0, reactions  
     (with amide group-containing cationic dyes)

L49 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1967:96212 HCAPLUS  
 DOCUMENT NUMBER: 66:96212  
 TITLE: Water-soluble quaternary azo dyes  
 INVENTOR(S): Braun, Willy; Weissauer, Hermann; Waechter, Rudolf  
 PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG  
 SOURCE: Ger., 3 pp.  
 CODEN: GWXXAW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1230943		19661222	DE 1958-B49026	1958 0523

&lt;--

GI For diagram(s), see printed CA Issue.  
 AB A mixture of 11.3 parts of the azo dye 3-AcC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (I)  
 → 2,3-HOC<sub>10</sub>H<sub>6</sub>CONHC<sub>6</sub>H<sub>4</sub>Ac-3, 5 parts pyridine-HCl, 2.25 parts  
 paraformaldehyde, and 150 parts concentrated AcOH was boiled until the

reaction product was H<sub>2</sub>O-soluble, the solvent distilled in vacuo, and the residue treated with absolute EtOH to give II, red crystals, which dyed cellulose acetate, polyamides, wool, and cotton red shades. Similarly, the azo dye I → 2-Cl<sub>10</sub>H<sub>7</sub>OH gave a brown-orange dye.

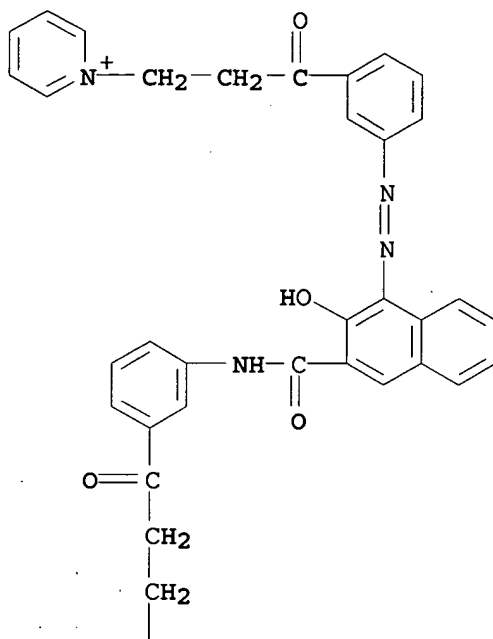
IT 15503-40-9P

(preparation of)

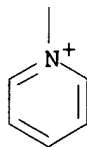
RN 15503-40-9 HCAPLUS

CN Pyridinium, 1-[2-[m-[3-hydroxy-4-[[m-(3-pyridiniopropionyl)phenyl]azo]-2-naphthamido]benzoyl]ethyl]-, dichloride (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● 2 Cl<sup>-</sup>

IC C09B  
CC 40 (Dyes, Fluorescent Brightening Agents, and Photosensitizers)  
ST QUATERNARY AZO DYES; COTTON DYES; AZO DYES QUATERNARY; PYRIDINIUM DYES; CELLULOSE



ACETATE DYES; POLYAMIDE DYES; WOOL  
DYES; CATIONIC DYES

- IT Fiber, acetate, uses and miscellaneous  
(dyes for, heterocyclic quaternized derivs. of azo  
compds. as)
- IT Nylon, uses and miscellaneous  
(dyes for, quaternized heterocyclic azo compds. as)
- IT Dyes, azo  
(quaternized heterocyclic derivs., acetate, cotton, nylon and  
wool)
- IT 15503-40-9P  
(preparation of)

L49 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:439053 HCAPLUS

DOCUMENT NUMBER: 65:39053

ORIGINAL REFERENCE NO.: 65:7326h,7327a-c

TITLE: Cationic anthraquinone dyes

INVENTOR(S): Iizuka, Masao; Arakawa, Kyokuji; Yokobori,  
Masaji

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd.

SOURCE: 9 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	----
JP 40018639	B4	19650821	JP	1963 0722

PRIORITY APPLN. INFO.:

JP

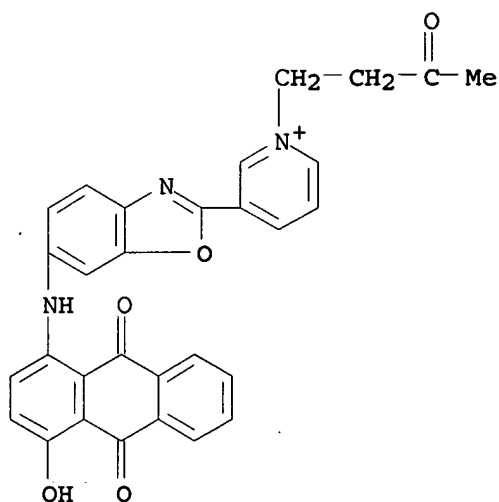
1963  
0722

GI For diagram(s), see printed CA Issue.

AB Anthraquinones of the formula I, where A = II or III and Q is 3-  
(IV) or 4-pyridyl (V) are quaternized to give dyes for  
polyacrylonitrile fibers (VI). Thus, a hot solution of I (X = MeNH, Y  
= Z = R = R1 = H, A = III, Q = IV) 4.46 in o-Cl2C6H4 150 parts was  
treated with 1.51 parts Me2SO4, stirred 2 hrs. at 115-20°,  
cooled, filtered, washed with C6H6-ligroine, and recrystd. from  
H2O to give 4.6 parts cationic dye, greenish blue on VI.  
Similarly other I (unless otherwise specified Z = R = R7 = H) were  
treated (X, Y, A, Q, quaternizing agent, and shade on VI given):  
MeNH, H, II, IV, CH2:CHCONH2 (VII) and HCl, greenish blue; OH, H,  
III, IV, p-MeC6H4SO3Et (VIII), reddish blue; OH, H, II, IV,  
CH2:CHCOME and HCl, blue; NH2, H, III, V, Me2SO4, blue; NH2, H,  
III, IV, VII and p-MeC6H4SO3H, blue; NH2, Br, II, V, EtBr, blue;  
NH2, Br, III, V, Et2SO4, blue; MeNH, H, III, V, Me2SO4, greenish  
blue; cyclohexylamino, H, III, IV, VII and HCl, greenish blue;  
NH2, H, II, IV, VIII, blue; NH2, H, II, V, VII and HBr, blue; NH2,  
Br, III, IV, PhSO3Me, blue; NH2, Br, II, IV, Me2SO4, blue; H, H,  
III, IV, Me2SO4, violet (Z = NH2); OH, H, III, V, Et2SO4, reddish  
blue; OH, H, II, V, VII and HCl, reddish blue; OH, H, III (R1 =  
Cl), IV, Me2SO4, blue; OH, H, III (R1 = Me), IV, Me2SO4, blue;  
p-MeC6H4NH, H, III, IV, Me2SO4, green; H, H, III, IV, VII and HCl,

greenish blue (Z = R = NH<sub>2</sub>); HOCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, H, III, IV, VII and HBr, blue; H, H, III, IV, Me<sub>2</sub>SO<sub>4</sub>, red. Cf. preceding abstract

- IT 13246-29-2, Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride (preparation of)
- RN 13246-29-2 HCAPLUS
- CN Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride (8CI) (CA INDEX NAME)



INCL 23F0

CC 46 (Dyes)

IT **Dyes**

(anthraquinone, [(1-anthraquinonylamino)-2-benzoxazolyl]pyridinium compds., poly(acrylonitrile))

- IT Acrylonitrile polymers (including copolymers)  
(dyes for fibers of, [(1-anthraquinonylamino)-2-benzoxazolyl]pyridinium compds. as)

- IT 13246-28-1, Pyridinium, 1-(2-carbamoyl-ethyl)-3-[6-[[4-(methylamino)-1-anthraquinonyl]amino]-2-benzoxazolyl]-, chloride
- 13246-29-2, Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride
- 13246-41-8, Pyridinium, 4-[6-[(4-amino-3-bromo-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-ethyl-, bromide
- 13492-90-5, Pyridinium, 4-[5-[(4-amino-3-bromo-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-ethyl-, ethyl sulfate
- 13531-58-3, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-ethyl-, bromide
- 14440-03-0, Pyridinium, 1-methyl-3-[[m-[[4-(methylamino)-1-anthraquinonyl]amino]phenyl]carbamoyl]-, methyl sulfate
- 14440-04-1, Pyridinium, 1-methyl-3-[5-[[4-(methylamino)-1-anthraquinonyl]amino]-2-benzoxazolyl]-, methyl sulfate
- 14440-05-2, Pyridinium, 3-[5-[(4-amino-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(2-carbamoyl-ethyl)-, p-toluenesulfonate
- 14651-44-6, Pyridinium, 1-ethyl-3-[5-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-, p-toluenesulfonate
- 15066-35-0, Pyridinium, 1-ethyl-3-[[m-[(4-hydroxy-1-anthraquinonyl)amino]phenyl]carbamoyl]-, p-toluenesulfonate (preparation of)

L49 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:439052 HCAPLUS

DOCUMENT NUMBER: 65:39052

ORIGINAL REFERENCE NO.: 65:7326f-h

TITLE: Cationic anthraquinone dyes

INVENTOR(S): Iizuka, Masao; Aarakawa, Kyokuji; Yokobori, Masaji

PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd.

SOURCE: 10 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 40018638	B4	19650821	JP	1963 0722

PRIORITY APPLN. INFO.:

JP

1963  
0722

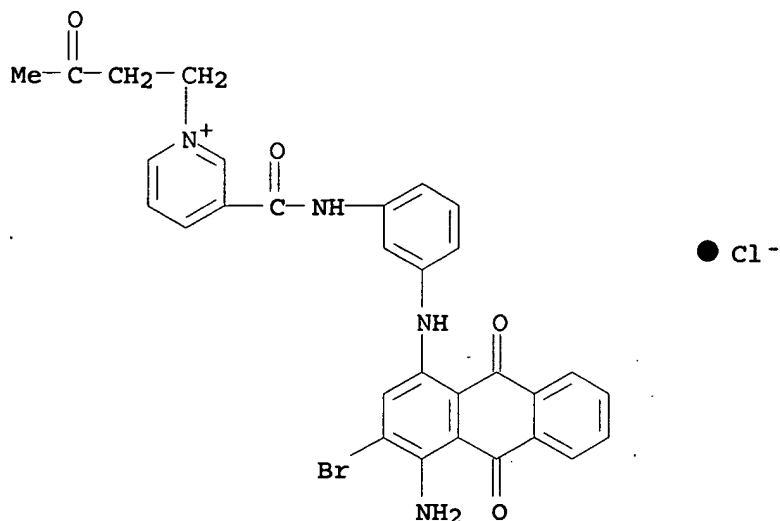
GI For diagram(s), see printed CA Issue.

AB Anthraquinones of the formula I, where A is m- (II) or p-phenylene (III) and Q is 3- (IV) or 4-pyridyl (V), are treated with quaternizing agents to give dyes for polyacrylonitrile fibers (VI). I are prepared by condensing 4-bromoanthraquinones or quinizarin with QCONHC6H4NH2 or by acylation of 4-(aminoanilino)anthraquinones with QCOCl. Thus, a mixture of I (X = NH2, Y = Z = H, A = III, Q = V) 4.34 and CH2:CHCONH2 (VII) 14.4 in AcOH 87 parts was heated to 90°, treated with 1.21 parts 36% aqueous HCl, stirred 1 hr. at 96-8°, and diluted with 800 parts H2O. Treatment with C and salting out yielded 4.6 parts cationic dye, blue in H2O and greenish blue on VI. Similarly other I (unless otherwise specified A = II, Q = IV) were quaternized (X, Y, Z, quaternizing agent, and shade on VI given): MeNH, H, H, Me2SO4, greenish blue; OH, H, H, p-MeC6H4SO3Et (VIII), reddish blue; NH2, Br, H, CH2:CHCOMe and HCl, blue; NH2, Br, H, EtBr, blue; MeNH, H, H, VII and HCl, greenish blue; NH2, H, H, Me2SO4, blue; OH, H, H, Me2SO4, reddish blue; NH2, Br, H, VII and HBr, blue; cyclohexylamino, H, H, VII and p-MeC6H4SO3H, greenish blue; HOCH2CH2NH, H, H, Me2SO4, greenish blue; H, H, NH2, VIII, violet; H, H, H, Me2SO4, red; AcNH, H, H, VII and HCl, reddish blue (A = III); NH2, CN, H, Me2SO4, blue. Cf. following abstract

IT 103622-10-2, Pyridinium, 3-[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)-, chloride (preparation of)

RN 103622-10-2 HCAPLUS

CN 3-[m-[(4-Amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)pyridinium chloride (7CI) (CA INDEX NAME)



INCL 23F0

CC 46 (Dyes)

IT **Dyes**

(anthraquinone, [(1-anthraquinonylamino)-2-benzoxazolyl]pyridinium compds., poly(acrylonitrile))

IT **Dyes**

(anthraquinone, [(1-anthraquinonylamino)phenyl]carbamoyl]pyridinium compds., poly(acrylonitrile))

IT Acrylonitrile polymers (including copolymers)

(dyes for fibers of, [(1-anthraquinonylamino)phenyl]carbamoyl]pyridinium compds. as)

IT 13531-58-3, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-ethyl-, bromide

13566-42-2, Pyridinium, 4-[[p-[(4-amino-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(2-carbamoylethyl)-, chloride 14440-03-0, Pyridinium, 1-methyl-3-[[m-[(4-(methylamino)-1-anthraquinonyl)amino]phenyl]carbamoyl]-, methyl sulfate 15066-35-0, Pyridinium, 1-ethyl-3-[[m-[(4-hydroxy-1-anthraquinonyl)amino]phenyl]carbamoyl]-, p-toluenesulfonate

103622-10-2, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)-, chloride (preparation of)

L49 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:11904 HCAPLUS

DOCUMENT NUMBER: 64:11904

ORIGINAL REFERENCE NO.: 64:2202h,2203a-b

TITLE: Cationic anthraquinone **dyes**

INVENTOR(S): Turetzky, Melvin N.

PATENT ASSIGNEE(S): General Aniline &amp; Film Corp.

SOURCE: 7 pp.

DOCUMENT TYPE: **Patent**

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

FR 1398575

19650507

FR

&lt;--

US 3274198

19660920

US 1963-287770

1963

0614

&lt;--

PRIORITY APPLN. INFO.:

US

1963

0614

&lt;--

GI For diagram(s), see printed CA Issue.

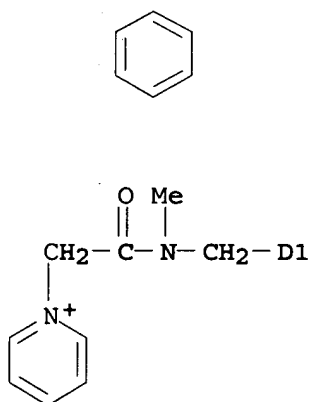
AB Anthraquinones of the general formula I, containing chloroacetylaminomethyl groups ( $Q = CH_2NHOCCH_2Cl$ ) (II) are quaternized with pyridine (III) or  $Me_3N$  to yield **dyes** for polyacrylonitrile (IV) fibers. II are prepared by treating I ( $Q = H$ ) (V) with  $ClCH_2CONH_2$  (VI) and paraformaldehyde (VII) in 100%  $H_2SO_4$  containing P205. Thus, 10 g. V ( $X = OH$ ,  $Y = Z = H$ ,  $R = OMe$ ) is added to a mixture of 20 g. VI, 11 g. VII and 9 g. P205 in 200 cc. 100%  $H_2SO_4$ , the mixture heated to 85-90°, drowned on ice, filtered and the cake washed neutral to give 13.4 g. II ( $X = OH$ ,  $Y = Z = H$ ,  $R = OMe$ ) (VIII). A mixture of 2 g. VIII and 20 g. III is evaporated to dryness to give the pyridinium derivative, blue on IV. Similarly treated with VI and VII are the following V ( $X, Y, Z, R$ , quaternizing agent, shade on IV given):  $MeNH$ , H, H, Me, III, green-blue;  $NH_2$ , Br, H, Me, III, reddish blue;  $p-MeC_6H_4NH$ , H, H, Me, III, green;  $NH_2$ , H,  $PhO$ , OH,  $Me_3N$ , reddish violet;  $NH_2$ , H, H, Me, III, neutral blue. Also prepared and quaternized with III to give a grey-blue **dye** for IV is IX.

IT 105696-39-7; 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride (preparation of)

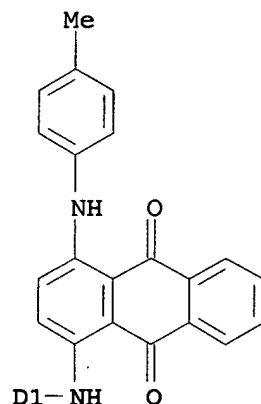
RN 105696-39-7 HCAPLUS

CN 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride (7CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC C09B  
 CC 46 (Dyes)  
 IT **Dyes**  
     (anthraquinone, pyridinium derivs., acrylonitrile polymers)  
 IT Acrylonitrile polymers (including copolymers)  
     (**dyes** for fibers of, anthraquinone)  
 IT 30599-80-5, Pyridinium, [[[ar-methyl-ar-[[4-(methylamino)-1-anthraquinonyl]amino]benzyl]carbamoyl]methyl]-, chloride  
 30599-83-8, Ammonium, [[[ar-[(1-amino-4-hydroxy-2(or 3)-anthraquinonyl)oxy]benzyl]carbamoyl]methyl]trimethyl-, chloride  
 30599-85-0, Pyridinium, 1-[[[6-amino-(5,14-dihydro-5,8,14-trioxonaphth[2,3-c]acridanyl)methyl]carbamoyl]methyl]-, chloride  
 105043-11-6, 1-[[[[(4-Hydroxy-1-anthraquinonyl)amino]methoxybenzyl]carbamoyl]methyl]pyridinium chloride 105696-39-7,  
 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride 856593-51-6, Pyridinium,  
 1-[[[[(4-amino-3-bromo-1-anthraquinonyl)amino]methylbenzyl]carbamo  
 yl]methyl]-, chloride  
     (preparation of)  
 IT 5811-83-6, Naphth[2,3-c]acridan  
     (pyridinium derivs., **dyes**)

L49 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1964:441047 HCAPLUS

DOCUMENT NUMBER: 61:41047

ORIGINAL REFERENCE NO.: 61:7172d-f

TITLE: Vat **dyeing** cellulosic textiles

PATENT ASSIGNEE(S): CIBA Ltd.

SOURCE: 12 pp.

DOCUMENT TYPE: **Patent**

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 956590

19640429

GB 1961-12460

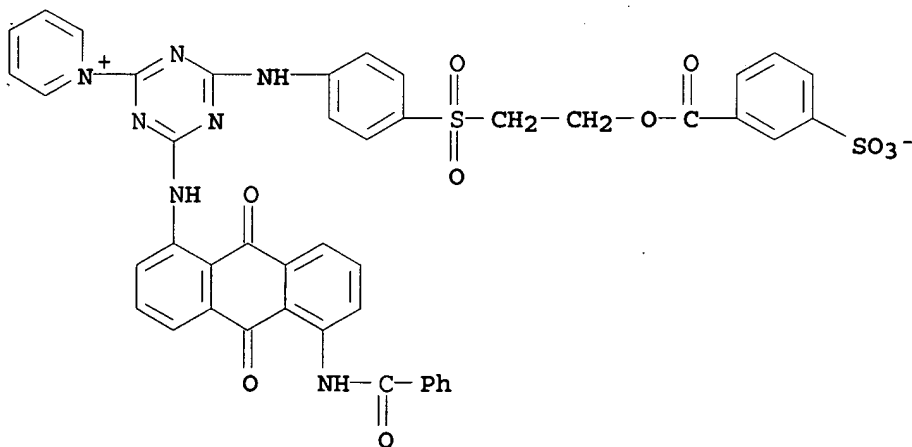
1961  
0406

PRIORITY APPLN. INFO.:

CH

1960  
0406

- AB Addition to Brit. 872,949. Vat **dyes** containing  $\geq 1$  group imparting solubility in H<sub>2</sub>O and  $\geq 1$  sulfone group are used. A vat **dye** containing  $\geq 1$  hydroxy alkyl sulfonyl group is treated with a sulfating agent, or an aminoanthraquinone is treated with an acylating agent containing a SO<sub>2</sub>R group, where R is a sulfato alkyl group, or a vat **dye** containing one or more sulfonyl halide or chlorotriazinyl groups is condensed with an amine containing a substituted SO<sub>2</sub>R group where R has the above meaning, or a suitable vat **dye** containing an alkylenemercapto group having an OSO<sub>3</sub>H group, preferably in the  $\beta$ -position, is oxidized. Thus, 0.75 part **dye** was pasted in 250 parts H<sub>2</sub>O. The resulting suspension was added to a solution of 10 parts by volume of 30% NaOH and 6 parts Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> in 1750 parts H<sub>2</sub>O heated to 35°, in which vatting takes place spontaneously. Fifty parts cotton was **dyed** in the resulting **dye** bath for 45 min. at 30-40° with addition of 60 parts of NaCl. The **dyed** cotton was oxidized, washed, acidified, rinsed, and soaped at the boil.
- IT 106504-49-8, Pyridinium, 1-[4-[(5-benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]-, hydroxide, m-sulfobenzoate (ester), inner salt (preparation of)
- RN 106504-49-8 HCAPLUS
- CN 1-[4-[(5-Benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]pyridinium hydroxide, m-sulfobenzoate, inner salt (7CI) (CA INDEX NAME)



- IC D06P
- CC 47 (Textiles)
- IT **Dyeing**  
(with sulfone group-containing vat **dyes** with reducing agents)
- IT 188-97-6, Anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline

(derivs., as dyes)

- IT 101522-85-4, Naphth[2,3-c]acridan-5,8,14-trione,  
6-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]- 102379-83-9, Anthraquinone, 1-benzamido-5-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-, hydrogen sulfate (ester) 106502-80-1, Anthraquinone, 1-benzamido-5-[[4-chloro-6-[p-[(2-hydroxypropyl)sulfonyl]anilino]-s-triazin-2-yl]amino]- 106504-49-8, Pyridinium, 1-[4-[(5-benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]-, hydroxide, m-sulfobenzoate (ester), inner salt 106884-20-2, Anthraquinone, 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamido-, m-sulfobenzoate (ester) 106884-20-2, Benzoic acid, m-sulfo-, ester with 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamidoanthraquinone 107385-21-7, 2-Anthracenesulfonanilide, 5,5'-[(6-chloro-s-triazine-2,4-diyl)diimino]-bis[9,10-dihydro-4'-[(2-hydroxyethyl)sulfonyl]-9,10-dioxo- 107631-43-6, Benzenesulfonic acid, 3,3'-(3,10-dihydro-1,3,8,10-tetraoxoanthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-2,9(1H,8H)-diyl)bis[6-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-, bis(hydrogen sulfate) (preparation of)
- IT 106884-20-2, Benzoic acid, m-sulfo-, ester with 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamidoanthraquinone (with dyes)

L49 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1964:425917 HCAPLUS  
DOCUMENT NUMBER: 61:25917  
ORIGINAL REFERENCE NO.: 61:4522h,4523a-c  
TITLE: Quaternary ammonium salts of 2-aminoalkoxy substituted anthraquinones  
INVENTOR(S): Katz, Leon; Turetzky, Melvin N.  
PATENT ASSIGNEE(S): General Aniline & Film Corp.  
SOURCE: 3 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

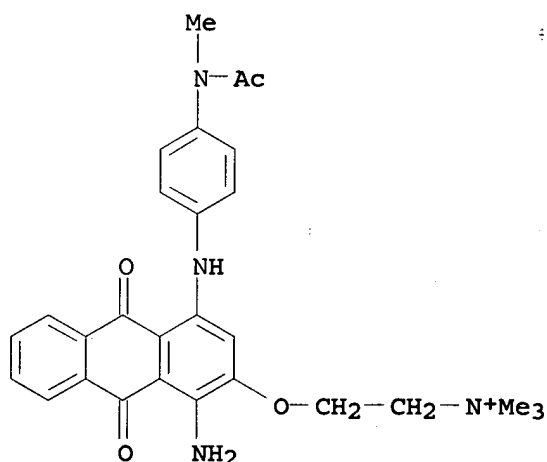
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3125586		19640317	US	1960 0108
DE 1207531			DE	
GB 951734			GB	
PRIORITY APPLN. INFO.:			US	1960 0108

- GI For diagram(s), see printed CA Issue.
- AB H<sub>2</sub>O-soluble anthra-quinone dyes of formula I, where R is cyclohexyl, Ph, 4-AcNPh, or 4-AcNMeC<sub>6</sub>H<sub>4</sub>, R<sub>1</sub> is alkylene, R<sub>2</sub> and R<sub>3</sub> are Me or Et, R<sub>4</sub> is the quaternizing alkyl group, and A- is an anion, dye polyacrylonitrile, modacrylic, polyester, and



polyamide fibers lightfast violet shades. Thus, 2 parts Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>OH was dispersed in 30 parts toluene, and 1.3 parts 50% Na dispersed in toluene added. When evolution of H ceased, 4 parts of the Na salt of 1-amino-2-sulfo-4-(cyclohexylamino)anthraquinone was added, the mixture heated at 80° for 3 hrs., poured into H<sub>2</sub>O, filtered, washed with H<sub>2</sub>O until the washings were clear, and dried. The solid (75 parts) was dissolved in 1000 parts C<sub>6</sub>H<sub>6</sub>, MeBr passed in until precipitation was complete, and the precipitate filtered, washed with warm H<sub>2</sub>O, and dried to give bright violet I (R = cyclohexyl, R<sub>1</sub> = CH<sub>2</sub>CH<sub>2</sub>, R<sub>2</sub> = R<sub>3</sub> = R<sub>4</sub> = Me, A = Br). Other I were prepared similarly (R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and A given): Ph, CH<sub>2</sub>CH<sub>2</sub>, Me, Me, Me, Br; Ph, CHMeCH<sub>2</sub>, Me, Me, Me, SO<sub>4</sub>; 4-AcNHC<sub>6</sub>H<sub>4</sub>, CH<sub>2</sub>CH<sub>2</sub>, Et, Et, Me, Br (or SO<sub>4</sub>); 4-AcNMeC<sub>6</sub>H<sub>4</sub>, CH<sub>2</sub>CH<sub>2</sub>, Me, Me, Me, Br (or SO<sub>4</sub>).

- IT 856320-53-1, Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide  
(preparation of)  
RN 856320-53-1 HCAPLUS  
CN Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide (7CI) (CA INDEX NAME)



● Br<sup>-</sup>

- INCL 260377000  
CC 46 (Dyes)  
IT **Dyes**  
(anthraquinone, bis(H sulfate) of di-derivs., cotton)  
IT **Dyes**  
(anthraquinone, quaternary ammonium compds. of  
[(dialkylamino)ethoxy] derivs., polyacrylonitrile, polyester  
and nylon)  
IT Nylon  
(dyes for)  
IT Esters  
(dyes for fibers from poly)  
IT Acrylonitrile polymers (including copolymers)  
(dyes for fibers of)

- IT 101036-03-7, Ammonium, bis[[2-[(1-amino-4-anilino-2-anthraquinonyl)oxy]propyl]trimethyl-], sulfate 101201-27-8, Ammonium, [2-[(1-amino-4-anilino-2-anthraquinonyl)oxy]ethyl]trimethyl, bromide 103652-21-7, Ammonium, [2-[[1-amino-4-(cyclohexylamino)-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide 106303-29-1, Ammonium, [2-[[4-(p-acetamidoanilino)-1-amino-2-anthraquinonyl]oxy]ethyl]diethylmethyl, bromide 107083-88-5, Ammonium, bis[[2-[[4-(p-acetamidoanilino)-1-amino-2-anthraquinonyl]oxy]ethyl]diethylmethyl-], sulfate 856320-53-1, Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide  
(preparation of)
- IT 82-44-0, Anthraquinone, 1-chloro- 82-46-2, Anthraquinone, 1,5-dichloro-  
(vat dye from benzamide and)

L49 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:448884 HCAPLUS  
DOCUMENT NUMBER: 59:48884  
ORIGINAL REFERENCE NO.: 59:8910a-c  
TITLE: Reactive anthraquinone dyes  
INVENTOR(S): Schoenauer, Wolfgang; Benguerel, Francois  
PATENT ASSIGNEE(S): Sandoz Ltd.  
SOURCE: 16 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
PATENT INFORMATION:

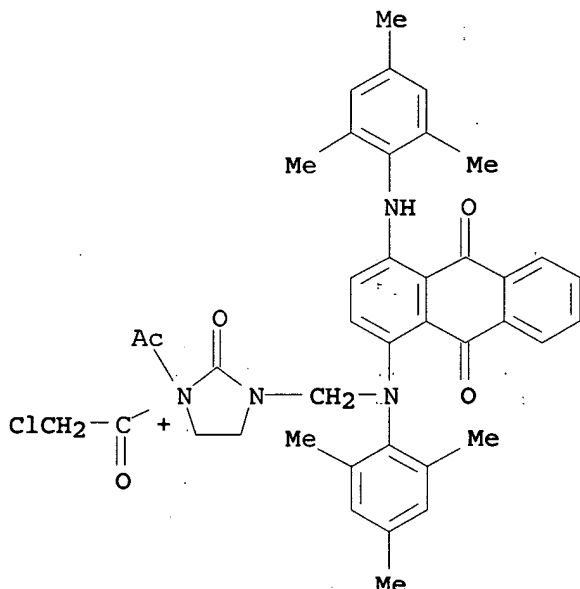
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 619084		19621015	BE	
GB 1008164			GB	
US 3134785		1964	US	
PRIORITY APPLN. INFO.:			CH	
				1961
				0622

- GI For diagram(s), see printed CA Issue.
- AB Anthraquinone dyes containing at least 1 group of the formula I are suitable for dyeing and printing silk, wool, natural and regenerated cellulose, polyesters, acetylcellulose, polyamides, and polyacrylonitriles containing basic groups fast blue and green shades. Thus, 1,4-bis(2,4,6-trimethylanilino)anthraquinone 9.5 was dissolved at 15-20° in 96% H<sub>2</sub>SO<sub>4</sub> 140, N-(chloroacetyl)-N'-(hydroxymethyl)ethyleneurea (II) 5.5 added at 10-15°, the mixture boiled for 4 hrs., poured onto ice 400 parts, the precipitate filtered, washed with H<sub>2</sub>O, dried, and treated at 15-20° with 10-20° oleum to give a dye, containing 1.5 l groups per mol., which was blue on wool, fast to light, washing and milling. Similarly, 1,4-di-p-toluidinoanthraquinone 8.4 and II 10 parts gave a green dye on wool, fast to washing and milling. Na 1-amino-4-(2,4,6-trimethylanilino)anthraquinone-2-sulfonate 11.6 dissolved in 96% H<sub>2</sub>SO<sub>4</sub> 200, and treated with II 4.6 parts gave a blue dye on wool, fast to washing and milling.
- IT 757232-91-0, 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-

1-anthraquinonyl]anilino]methyl]-  
(mixture containing)

RN 757232-91-0 HCAPLUS

CN 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-1-anthraquinonyl]anilino]methyl]-  
(7CI) (CA INDEX NAME)



CC 46 (Dyes)

IT **Dyes**  
(anthraquinone, [[3-(chloroacetyl)-2-oxo-1-imidazolidinyl]methyl]-containing, acrylonitrile polymers, cellulose, polyamides, etc.)

IT Acrylonitrile polymers (including copolymers)  
Nylon  
(dyes for)

IT Esters  
(poly-, dyes for)

IT 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-(hydroxymethyl)-  
(dyes from)

IT 128-80-3, Anthraquinone, 1,4-di-p-toluidino-  
(dyes from)

IT 757232-91-0, 2-Imidazolidinone 1-acetyl-,  
1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-1-anthraquinonyl]anilino]methyl]-  
(mixture containing)

L49 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1961:140173 HCAPLUS

DOCUMENT NUMBER: 55:140173

ORIGINAL REFERENCE NO.: 55:26458d-f

TITLE: **Dyeing** and printing of  
polyacrylonitrile

INVENTOR(S): Maier, Karl; Eisele, Julius; Federkiel,  
Wilhelm

PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik Akt.-Ges.

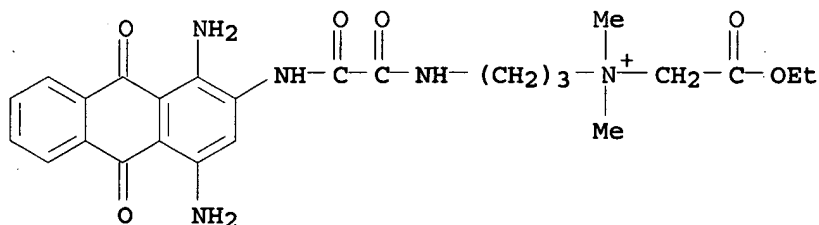
SOURCE: Addn. to Ger. 1,054,959 (See Brit. 824,530, CA

DOCUMENT TYPE: 55, 6877b.)  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION: Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1080965		19600505	DE 1958-B51413	1958 1212

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- AB Quaternary derivs. of aminoanthraquinonecarboxamides containing at least 1 tertiary amino group in the substituent on the amido N are used to dye polyacrylonitrile (I) or acrylonitrile-containing copolymers. The dyes are obtained from those described in the main patent by treating with alkyl halides, aralkyl halides, dialkyl sulfates, aromatic sulfonic esters, or halogenacyl amides. For example, 100 g. I fabric was treated for 90 min. at the b.p. with 1 g. 1,4-diaminoanthraquinone-2-carboxylic acid 3-dimethylaminopropylamide-Me<sub>2</sub>SO<sub>4</sub> in 3 l. H<sub>2</sub>O containing 3 g. 30% AcOH and 0.3 g. AcONa. A blue shade of very good fastness to light and moisture was obtained.
- IT 857177-24-3, Ammonium, (carboxymethyl) [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester (acrylonitrile-polymer-fiber dyeing and printing with)
- RN 857177-24-3 HCAPLUS
- CN Ammonium, (carboxymethyl) [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester (6CI) (CA INDEX NAME)

● Cl<sup>-</sup>

- INCL 8M
- CC 25 (Dyes and Textiles)
- IT Dyeing  
 (of acrylonitrile-polymer fibers, with aminoanthraquinonecarboxamide quaternary derivs.)
- IT Vinyl compounds, polymers  
 (with acrylonitrile, dyeing and printing with aminoanthraquinonecarboxamide quaternary derivs.)
- IT Ammonium, [3-(1-amino-4-methylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate  
 Pyrrolidinium compounds, 1-[3-(1-amino-4-methylamino-2-

anthraquinonecarboxamido)propyl]-1-methyl-, methyl sulfate  
(acrylonitrile-polymer-fiber dyeing and printing  
with)

- IT 115985-65-4, Ammonium, [3-(1-amino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate 117862-41-6, 4-[3-(1-Amino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 121972-78-9, 1-[3-(1-Amino-4-methylamino-2-anthraquinonecarboxamido)propyl]hexahydro-1-methylazepinium methyl sulfate 123885-17-6, 4-[3-(1-Amino-4-methylamino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 132494-40-7, 4-[3-(1,4-Diamino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 857012-18-1, Ammonium, [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl(p-nitrobenzyl)-, chloride 857012-20-5, Ammonium, [4-(1,4-diamino-2-anthraquinonecarboxamido)pentyl]diethylmethyl-, methyl sulfate 857012-22-7, Ammonium, [2-(1,4-diamino-2-anthraquinonecarboxamido)ethyl]trimethyl-, methyl sulfate 857012-24-9, Ammonium, [2-(1,4-diamino-2-anthraquinonecarboxamido)ethyl]diethylmethyl-, methyl sulfate 857012-26-1, Ammonium, [p-(1,4-diamino-2-anthraquinonecarboxamido)benzyl]diethylmethyl-, methyl sulfate 857174-96-0, Ammonium, [p-(1-amino-2-anthraquinonecarboxamido)benzyl]trimethyl-, methyl sulfate 857177-24-3, Ammonium, (carboxymethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester 860445-25-6, Piperidinium, 1-[3-(1-amino-4-ethylamino-2-anthraquinonecarboxamido)propyl]-1-methyl-, methyl sulfate  
(acrylonitrile-polymer-fiber dyeing and printing  
with)
- IT 114352-83-9, Ammonium, (carbamoylmethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride  
(acrylonitrile-polymer-fiber dyeing and printing with)
- IT 25014-41-9, Acrylonitrile polymers  
(dyeing and printing with  
aminoanthraquinonecarboxamide quaternary derivs.)
- IT 857012-17-0, Ammonium, [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]trimethyl-  
(salts, acrylonitrile-polymer-fiber dyeing and  
printing with)

L49 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1960:59298 HCAPLUS  
DOCUMENT NUMBER: 54:59298  
ORIGINAL REFERENCE NO.: 54:11493h-i, 11494a  
TITLE: (1 - Alkylamino - 2 -  
anthraquinonylcarbonylaminoalkyl)-  
trialkylammonium salts as disperse  
dyes

INVENTOR(S): Joyce, Asa W.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2924609		19600209	US 1958-741006	1958

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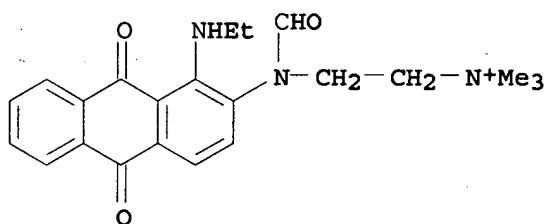
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- AB The title compds. are useful for coloring acrylic fibers in bluish red shades; they are also useful for **dyeing** acetate, nylon, silk, Vicara, and wool. 1-Nitroanthraquinone-2-carbonyl chloride (9.5 parts) in 75 vols. benzene is treated gradually with 6.3 parts dimethylaminopropylamine (I) at 15-20°, the mixture stirred 1 1/4 hrs., the product filtered off, washed with benzene, dried, slurried in 75 parts H<sub>2</sub>O, made alkaline with Na<sub>2</sub>CO<sub>3</sub>, the product filtered, washed, and dried. The product (5.7 parts) in 60 vols. toluene is treated with 2.7 vols. 70% EtNH<sub>2</sub> (II), stirred several hrs. at 85-90°, refluxed to complete the reaction, and solvent evaporated to give 1-ethylamino-2-[N-(dimethylaminopropyl)carbamoyl] anthraquinone (III). III (5.5 parts) in 100 vols. benzene is warmed on a steam bath with 1.5 vols. Me<sub>2</sub>SO<sub>4</sub>, the mixture cooled and filtered to give the quaternary salt. Replacement of I in the above example with diethylaminobutylamine and treatment of the resulting **dye** with BuNH<sub>2</sub> in place of II and quaternization with EtBr gives a similar **dye**; also replacement of I with dimethylaminoethylamine and treatment with cyclohexylamine and MeI gives a similar **dye**.
- IT 857013-54-8, Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate (preparation of)
- RN 857013-54-8 HCAPLUS
- CN Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate (6CI) (CA INDEX NAME)

CM 1

CRN 857013-53-7

CMF C22 H26 N3 O3



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

CC 25 (Dyes and Textiles)

IT **Dyes**

(anthraquinone 1-alkylamino-2- $\omega$ -dialkylaminoalkylcarbamoyl derivs., quaternary compds., acrylic fibers, acetate rayon, nylon, silk, Vicara and wool)

IT Nylon  
(dyes for)  
IT 112044-73-2, 2-Anthraquinonecarboxamide, N-(3-dimethylaminopropyl)-1-ethylamino-  
(and quaternary compds. therefrom, as dyes)  
IT 112554-71-9, Ammonium, ( $\beta$ -p-anisoylphenethyl)trimethyl-  
(anthraquinone derivs., dyes)  
IT 9003-01-4, Acrylic acid, homopolymer  
(dyes for fibers of)  
IT 857013-54-8, Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate  
(preparation of)

L49 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1945:13372 HCAPLUS  
DOCUMENT NUMBER: 39:13372  
ORIGINAL REFERENCE NO.: 39:20761,2077a-d  
TITLE: Betaine esters  
INVENTOR(S): Lynch, Adrian L.  
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2359862		19441010	US 1942-451681	1942 0720

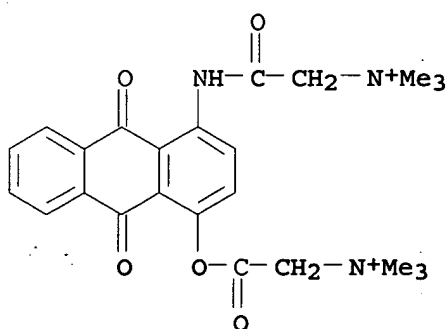
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GI For diagram(s), see printed CA Issue.

AB A new class of compds. is obtained by causing a betaine acid halide (I) to react with an organic hydroxyl-containing esterifying agent (II). I corresponds to the formula  $\text{Me}_2\text{RN}(\text{X})\text{CH}_2\text{COCl}$ , where R is a hydrocarbon radical and X is the anion of a strong acid. II is chosen from among insol. dyes having 1 or more substituted OH groups. The OH occurs preferably in a side chain and is linked with the nucleus by an alkylene radical of no more than 4 C atoms. The azo and the anthraquinone dyes contain many members satisfying these requirements. The esterification is carried out in a liquid medium, preferably pyridine. The latter also acts as an acid acceptor. Produced were: betaine methyl ester chloride,  $\text{Me}_3\text{N}(\text{Cl})\text{CH}_2\text{COOMe}$ , m.  $167^\circ$  (decomposition); betaine resorcinol ester chloride (a mixture of the mono ester,  $m\text{-HOC}_6\text{H}_4\text{OCOCH}_2\text{N}(\text{Cl})\text{Me}_3\cdot\text{HCl}$ , and dibetainyl ester), m.  $187\text{--}9^\circ$ ,  $\beta$ -(ethylphenylamino)ethyl betainate chloride ( $\text{PhEtNCH}_2\text{CH}_2\text{OCOCH}_2\text{N}(\text{Cl})\text{Me}_3$ ), 6,6'-bis ( $\beta$ -N-chlorobetainoxyethoxy)thioindigo (III), 2-chloro-4,6-dinitro-2'-acetamido-5'-methoxy-4'-[bis( $\beta$ -N-chlorobetainoxyethyl)amino]azobenzene, 1-[2,5-bis( $\beta$ -N-chlorobetainoxyethoxy) phenylazo]-2-hydroxy-3-naphthanilide, 1-(N-chlorobetainylamino)-4-(N-chlorobetainoxy)anthraquinone, 2-(N-chlorobetainoxy)-5-methyl-4'-acetamidoazobenzene (colors cellulose acetate, from a weakly acid bath, in bright yellow shades), 2,4-bis(N-chlorobetainoxy)-3-phenylazoquinoline (dyes cellulose acetate, wool, nylon, silk, etc., in yellow shades), dodecyl ester of (sulfobenzyl)phenyldimethylammonium acid sulfate ( $(\text{C}_{12}\text{H}_{25}\text{O}_3\text{SC}_6\text{H}_4\text{CH}_2)\text{Me}_2\text{PhNSO}_4\text{H}$ ), m.  $100^\circ$  (a foaming,

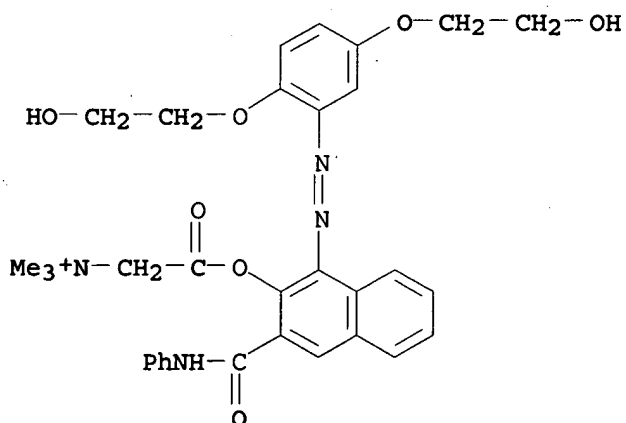
wetting and detergent substance), 2-(N-chlorobetainoxy)-3-naphthanilide, etc. These and similar new compds. are dyes made H<sub>2</sub>O-soluble, dye intermediate and starting substances for making other valuable compds.

- IT 860533-55-7, Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride 861089-62-5, 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride (preparation of)
- RN 860533-55-7 HCAPLUS
- CN Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride. (4CI) (CA INDEX NAME)



● 2 Cl<sup>-</sup>

- RN 861089-62-5 HCAPLUS
- CN 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride (4CI) (CA INDEX NAME)



● Cl<sup>-</sup>



CC 10 (Organic Chemistry)

IT **Dyes**

(betaine derivs. of)

IT 854225-90-4, Ethanol, 2-N-ethylanilino-, ester with (carboxymethyl)trimethylammonium chloride 857621-67-1, Acetanilide, p-(6-hydroxy-m-tolylazo)-, ester with (carboxymethyl)trimethylammonium chloride 860533-55-7, Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride 861089-56-7, 2-Naphthanilide, 3-hydroxy-, ester with (carboxymethyl)trimethylammonium chloride 861089-62-5, 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride (preparation of)

L49 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1944:35031 HCAPLUS

DOCUMENT NUMBER: 38:35031

ORIGINAL REFERENCE NO.: 38:5215d-i,5216a

TITLE: Anthraquinone derivatives. I. Several anthrapyridones

AUTHOR(S): Dupont, Raoul A. A.

SOURCE: Bulletin des Societes Chimiques Belges (1943), 52, 7-20  
From: Chem. Zentr. II, 1367-8(1943).  
CODEN: BSCBAG; ISSN: 0037-9646

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

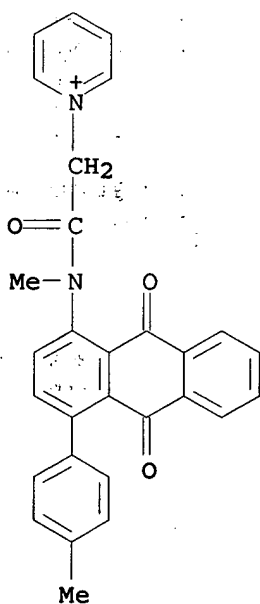
AB 1-(Methylamino)anthraquinone (I) and its 4-Br derivative (II) yield a tri-Br derivative (III); whereas II is very stable, III is easily decomposed. The Ac compds. of II and its derivs. on cyclization yield anthrapyridones. N-Methyl-1(N), 9-anthrapyridone (IV) (10 g.) in 45 cc. PhNO<sub>2</sub>, gradually treated with 3.8 cc. SO<sub>2</sub>Cl<sub>2</sub>, gives the 3'-Cl derivative (V), m. 254-7°. V (5 g.) in 50 cc. C<sub>5</sub>H<sub>6</sub>N, heated several hrs. and the product crystallized from H<sub>2</sub>O containing a little NaCl, gives the compound C<sub>22</sub>H<sub>16</sub>O<sub>2</sub>N<sub>2</sub>Cl, yellow crystalline powder; 2-picoline yields a light green powder. Acetylation and cyclization of II yield 4-bromo-N-methyl-1(N), 9-anthrapyridone (abstract gives pyridine) (VI), m. 278°. Chlorination of VI in AcOH gives the 3-Cl derivative (VII), yellow, m. 297°; C<sub>5</sub>H<sub>5</sub>N gives the compound C<sub>22</sub>H<sub>14</sub>O<sub>2</sub>N<sub>2</sub>BrCl, yellow; 2-picoline yields an analogous condensation product. VI (30 g.), 250 g. p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> and 20 g. AcOK, heated 6 hrs. at 165°, the product poured into 2 l. 10% HCl and crystallized from PhNO<sub>2</sub>, give 4-p-tolylamino-N-methyl-1(N), 9-anthrapyridone, violet, m. 270° (decomposition); SO<sub>2</sub>Cl<sub>2</sub> in PhNO<sub>2</sub> gives a Cl derivative, m. 260°, which yields a C<sub>5</sub>H<sub>5</sub>N condensation product, m. 273°. The 4-p-tolylamino derivative (VIII) of I (10 g.) and 20 cc. Ac<sub>2</sub>O, heated several hrs. at 120°, give 1-methylacetamido-4-p-tolylaminoanthraquinone, red-violet (from PhNO<sub>2</sub>), m. 201°; VIII (9 g.) and 3 cc. ClCH<sub>2</sub>COCl in 5 cc. PhMe, heated 1 hr. at 100°, give 8.5 g. of the 1-chloroacetylmethylamino derivative, violet, m. 188-90°; heating with C<sub>5</sub>H<sub>5</sub>N gives 4-p-tolylaminoanthraquinonylmethylacetamido- $\pi$ -pyridinium chloride, C<sub>29</sub>H<sub>24</sub>O<sub>3</sub>N<sub>3</sub>Cl. II (10 g.) in AcOH at 100°, treated during 2 hrs. with 1.8 cc. Br, gives 10 g. of the di-Br derivative, m. 168°; Ac<sub>2</sub>O causes a partial decomposition of the base; ClCH<sub>2</sub>COCl gives a chloroacetyl derivative, m. 251°. I (10 g.) and 0.7 (?) cc. Br in AcOH, heated 1 hr.

at 100°, give 14 g. of III, m. 214-17°; 10 g. II and 3.5 g. Br in AcOH also give III. III (10 g.) and 20 cc. Ac2O with 0.2 cc. concentrated H2SO4, heated 2 hrs., give the Ac derivative, yellow-brown, m. about 190°; chloroacetylation gives an impure product because of partial decomposition of III. An attempt to prepare a tetra-Br derivative of I gave an indefinite product. The bromination of IV or VI in AcOH or PhNO2 introduces 1-2 atoms Br, nearly all of which is split off by heating at 150°. The quaternary C5H5N salts of V and VII are strong photographic dispensers but cause fogging. The replacement of the Cl in V and VII by OH or SO3H gives weak desensitizers. Alizarin-Astrol B (IX) (10 g.) in 30 cc. AcOH, heated 4 hrs. and 1 g. of the violet Ac derivative in 10 cc. EtOH, heated 6 hrs. with 0.5 cc. concentrated NaOH, gives the pyridone derivative, deep violet; the pyridone derivative of Alizarin-Rubinol R (X) is rose-red, absorption maximum at 545 mμ; that from Alizarin-Geranol B is red, that from Anthraquinone Violet is brown and that from Alizarin G is violet, absorption max 660 mμ. In an attempt to transform IX into X, IX was acetylated and cyclized; the resulting product was not X. The dipyrone derivatives are acid wool dyes.

IT 861029-01-8, Pyridinium, 1-[[methyl(4-p-tolyl-1-anthraquinonyl)carbamyl]methyl]-, chloride  
(preparation of)

RN 861029-01-8 HCAPLUS

CN Pyridinium, 1-[[methyl(4-p-tolyl-1-anthraquinonyl)carbamyl]methyl]-, chloride (4CI) (CA INDEX NAME)



● Cl<sup>-</sup>

CC 10 (Organic Chemistry)

IT **Dyes**  
(Alizarin Astrol B, pyridone derivs.)

IT **Dyes**  
(Alizarin G, pyridone derivs.)

IT **Dyes**  
(Alizarin Geranol B, pyridone derivs.)

IT **Dyes**

(Alizarin Rubinol R, pyridone derivs.)

IT Dyes

(alizarin dipyridone, acid, wool)

IT 81-85-6, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione,  
6-bromo-3-methyl- 6535-64-4, Anthraquinone, 1-(N-  
methylacetamido)-4-p-toluino- 51945-32-5, 7-  
Dibenz[f,ij]isoquinoline-2,7(3)-dione, 1-chloro-3-methyl-  
854397-65-2, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione,  
6-bromo-5-chloro-3-methyl- 854397-66-3, 2-Picoline, compound with  
6-bromo-5-chloro-3-methyl-7-dibenz[f,ij]isoquinoline-2,7(3)-dione  
854397-66-3, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione,  
6-bromo-5-chloro-3-methyl-, 2-picoline 854397-68-5,  
7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 6-bromo-5-chloro-3-methyl-  
, compound with pyridine 854398-97-3, 7-Dibenz[f,ij]isoquinoline-  
2,7(3)-dione, 3-methyl-4-p-toluino- 854399-17-0,  
7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 1-chloro-3-methyl-,  
compound with pyridine 860528-88-7, Anthraquinone,  
1-( $\alpha$ -chloro-N-methylacetamido)-4-p-toluino-  
861029-01-8, Pyridinium, 1-[[methyl(4-p-tolyl-1-  
anthraquinonyl)carbonyl]methyl]-, chloride  
(preparation of)